COWORKING:
THE IMPACT OF CHANGING WORK ENVIRONMENTS ON URBAN PLANNING

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Coworking spaces have the potential to play a significant role as platforms for collaboration across disciplines and sectors. Work styles and environments within the knowledge sector are shifting to cater toward remote workers, contract employees, and small-scale entrepreneurial endeavors. Coworking businesses operate on a spectrum, from small, independent workspaces to deluxe office suites. Despite their unique characteristics, coworking spaces all tend to have a combination of individual and communal work spaces that allow for workplace community.

Coworking spaces open up opportunities for decentralized work environments and employment hubs. They respond to changing workforce and employment realities in the current economy by providing space for alternative work styles. Most cities do not have explicit economic development or land use policies focused on coworking spaces, and we are seeing them emerge in a variety of zoning districts. This research focuses on the unique characteristics of coworking spaces and examines the land use code they operate within in the City of Portland.

After evaluating 25 coworking businesses and interviewing 31 people associated with them, three key insights emerged: 1) there are three main typologies along the coworking spectrum (Minimal, Balanced, and Premium) and locational preferences exist for each; 2) the sense of community within coworking businesses and with neighboring businesses is extremely important to members; and 3) there are opportunities for the local public sector to be more proactive toward this quickly developing workplace type. Recommendations were developed for both public sector economic development professionals and private business owners to strategize ways to harness the benefits of coworking spaces for the broader community.

Research Questions

What are the unique characteristics of coworking spaces, and in what zoning district are they located?

What are the perceptions of coworking and their impact on land use and economic development?

What role could the public sector to play in capturing the benefits of coworking spaces for economic development?

Key Findings

- Coworkers value a strong sense of community, both among fellow coworkers and local business establishments. They prioritize the atmosphere and culture when selecting their space, and appreciate connections with the local businesses and community.
- Coworking typologies are oriented around a spectrum of land use intensities, from the downtown central business district to low-density mixed-use neighborhoods. Typologies tend to predict where coworking spaces will locate. Multiple dimensions of coworking spaces, from those focused on independence to intentional community, exist across the coworking spectrum.
- Coworking serves professionals employed in a variety of industries and sectors. Alternative work styles are not only applicable to tech-industry workers and self-employed entrepreneurs. Professionals across multiple industries and sectors use coworking spaces.
- Local government is reacting to the trend of coworking, rather than proactively understanding the reasons behind its emergence and how it impacts the community. Coworking spaces do not pose a threat to the community, therefore they are permitted without unique considerations.

Recommendations

Public Sector

- Ask your community if they want a coworking space. Understand the employment sector in your community and survey the need or desire for a coworking space. Determine the type of space that would best serve workers in the community.
- Identify 'coworking' as a tool for economic development. Develop incentives to attract coworking spaces to local communities, through property tax incentives and tax credit programs, for example.
- Take inventory of coworking spaces that currently exist and classify them as a specific typology. Gather market data with available listings of coworking spaces to assist new businesses and workers in their decision making process for relocating to your community.

Private Sector

- Establish a coalition led by coworking business owners, managers, and members. The coalition, endorsed by the public sector, could play an important role in connecting coworking businesses to each other, and connecting prospective entrepreneurs to locations to work.

CHAPTER 1: INTRODUCTION

Coworking is occupying an emerging niche in the labor market, and is increasingly being sought out as an alternative workplace of choice for a new generation of workers. Coworking is characterized by its open-space design concept that merges the independence of a home office environment and the team atmosphere of a traditional office space. The perception of coworking has expanded from being primarily a venue for tech start-up companies, to providing a space to build community. Since the Great Recession, the rise in self-employment has led to an explosion in demand for coworking space, particularly from millennials in tech industry startups (Ward, 2018). According to Deskmag's 2017 Global Coworking Survey, the number of coworking spaces is growing by 22 percent per year, and the number of coworking members is growing at 40 percent per year (Statista, 2017).

When the coworking movement gained traction in the early 2000s, it primarily served the tech industry and start-up companies focused on business accelerators and incubators. The concept of coworking has since evolved as a space that promotes social cohesion among independent workers from diverse professions. Many coworking members seem interested in the synergy that occurs in an office environment while maintaining autonomy and independence in their professional work. Coworking spaces are also used by companies that want to accommodate their employees' desire for flexible work options, and emphasize innovation and collaboration.

Much of the scholarly literature related to this topic emphasizes coworking as an emergent preference for a new way of working. Although well covered by market based researchers and the media, coworking is rarely addressed by municipal government entities. The focus of this research is to study the perception of coworking spaces in the City of Portland by coworking site owners and members, and public sector employees. Recommendations are included for economic development professionals in the public sector and coworking owners and members in the private sector. The following section will provide further background and history of the coworking movement, and how the context of the term has evolved.

What is coworking?

Co-working is defined as "membership-based workspaces with diverse groups of freelancers, remote workers, and other independent professionals working together in a shared, communal setting"(Speitzer, Garrett, & Bacevice, 2015). Coworking spaces target independent professionals looking for office space to rent. Members work within a variety of diverse industries and sectors, which differentiates coworking from other shared spaces that attract entire groups of professionals who are working towards similar goals. The focus of coworking is to provide workspace, while also providing an environment for organic collaboration. As detailed later in this report, coworking spaces may also function as community centers, places for friends and strangers to gather, in addition to sharing

infrastructure, office supplies, and the cost of doing business. They allow members the freedom and independence of working for themselves along with the structure and community of working with others.

Research Questions

This research explores the rise of coworking in Portland, OR. It analyzes the urban environment that supports coworking businesses in the context of regulatory land use and unique characteristics of their operations. It questions the role of the public sector in adapting to the shift in work environments, and aims to answer the research questions below to understand coworking in Portland:

What are the unique characteristics of coworking spaces, and in what zoning district are they located?

What are the perceptions of coworking and their impact on land use and economic development?

What role could the public sector to play in capturing the benefits of coworking spaces for economic development?

This research is meant to be exploratory in nature, and lay the groundwork for future research. My objectives are to inform business leaders and local economic development agencies about the impact of coworking spaces are having in supporting the changing nature of work.

My Approach

To decide which coworking spaces to study, I researched all coworking sites that currently existed in Portland, which resulted in a total of 25 spaces. I intentionally selected a variety of types of coworking businesses to contact that differed by their size, location, cost, and membership-base. A list of coworking sites in Portland are listed in Chapter 4 of this report.

To gain insight into the changing work environments, I conducted interviews with thirty-one (31) people associated with coworking spaces, including owners, managers, coworking members, and public sector economic development professionals. For confidentiality, their names are not included in this report or associated with a specific coworking business.

Coworking owners and managers were asked to provide insight into the workforce of flexible and contract employees. The inquiry also focused on the reasons why the coworking operation started, and asked about the sense of community each coworking space offered. Owners, managers and members were asked to predict how changing work environments will affect their business or profession in the future, and how they see the design of future office space changing to adapt to the new style of work.

Coworking vs. Other Shared Workspaces

We commonly think of the tech or gig economy sector when we say startup. "Start-up spaces primarily support fledgling firms in "start-up mode", though some house firms expanding into new areas. These spaces can cater to start-ups across different clusters, while others are tailored to cultivate just one type of business" (Wagner & Watch, 2017, p.11). Recently, start-up spaces are also considered "innovation spaces", such as an accelerator, incubator, or maker-space, because the goal of many new companies is to provide opportunities for cross-collaboration and layering of skills and support. This causes confusion around defining innovation spaces.

Accelerators

Accelerators are programs that help entrepreneurs bring their products into the marketplace. They typically operate by "inviting a cohort of startup companies to work intensively on their technologies for a period of time, while offering a suite of professional services, mentoring, and office space in a competitive program format" (Dempwolf, Auer & Fabiani, 2014).

Incubators

In the context of business, incubation refers to the support process that nurtures the development of a business in its early stages. The primary goal of an incubator is to "produce organizations that will leave the incubation program as a self-supporting organization during the start-up period when they are most vulnerable" (Literature Review, 2007). Beginning businesses and entrepreneurs join incubators to connect and network with their professional community, for the purpose of building successful enterprises.

Coworking

The term coworking encompasses the types of shared work spaces described above, and more. "Coworking spaces are broadly considered office spaces for a low-risk, monthly membership fee, that also provide amenities of scale. Start-ups can occupy coworking spaces, as can a wide range of more established firms and organizations" for a variety of professional sectors (Wagner & Watch, 2017, p.12). Shared work environments fall under the umbrella term, 'coworking', although many dimensions of coworking exist among them. The following section provides background for shared work spaces, and the various work environments that are considered 'coworking'.

CHAPTER 2: RISING DEMAND FOR COWORKING

The following section draws from relative academic publications and recent press articles to provide context for the coworking trend, citing the impacts of coworking on cities and urban planning.

Changing Labor Market

Coworking spaces are becoming increasingly more prevalent around the world as an alternative to the traditional office space. Since the concept started gaining popularity in 2005, the U.S. has seen a steady rise in "alternative work" arrangements, including employment as a temporary worker, contract company worker, independent contractor, or freelancer. The number of coworking spaces worldwide has substantially increased each year since 2005, as many more contractual workers seek work arrangements that break away from the characteristics of traditional office environments (Statista, 2018). The United States is forecasted to continue this trend of becoming a nation of independent freelancers and temporary employees. According to a prediction in a 2017 study by Intuit, more than 40% of the U.S. workforce would be freelancers, contractors, or temp workers by year 2020, which includes more than 60 million people (Giang, 2013).

Figure 1. Number of Coworking Spaces Worldwide from 2005 to 2018
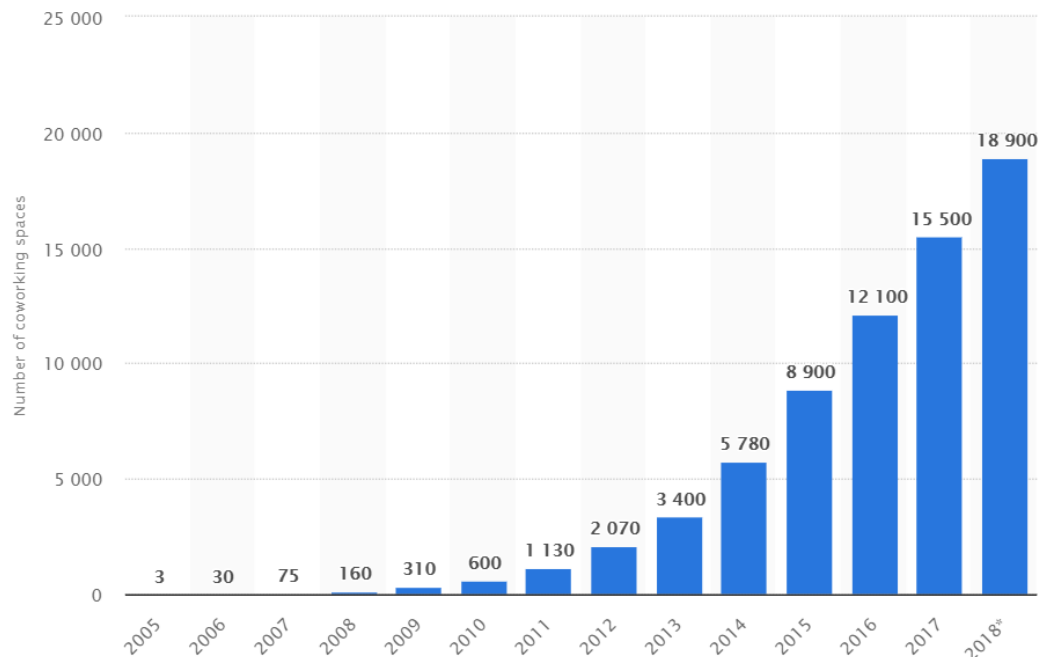
Source: Stastista. https://www.statista.com/statistics/554273/number-of-coworking-spaces-worldwide/
*This statistic shows the number of coworking spaces worldwide from 2005 to 2017 and gives a

projection for 2018. In 2017, there were 15,500 coworking spaces globally, and there were around 1.27 million people working in coworking spaces worldwide.

Globalization and technological changes have undeniably transformed work relations. The changes have supported the growing sector of independent workers to become a major driver of the expanding coworking movement. Many of the qualities of independent work, such as mobile communication technologies, internet access and the digitization of work, have also changed the relationship between knowledge work activities and fixed office locations.[1]

The Contingent Workforce

A 'contingent workforce' is a labor pool whose members are hired by an organization on an on-demand basis. Professions in this workforce include freelancers, independent contractors, consultants, or other outsourced and non-permanent workers who are hired on a per-project basis (Fournier, 2015). The contingent workforce represents all people who freelance, including workers for Uber, Lyft, and Airbnb, as well as moonlighters and full-time employees. Contingent workers are attracted to coworking spaces because of the freedom, flexibility and adaptability they provide for their mobile workstyles. The increase in the contingent workforce is one reason why there is optimism for the growing trend in coworking.

It is increasingly more common for people to work remotely and without a collective shared community of other workers. The expression of the "lone eagle" was born out of this trend, and refers to the "knowledge worker, who can live and work anywhere, primarily because of advances in telecommuting technologies" (Young, 1997). Philip M. Burgess, who coined the term, asserts that despite the lone eagles' ability to locate anywhere, they tend to concentrate in urban areas. A paradox now exists, as ubiquitous digital connectivity often leads knowledge workers to become increasingly isolated (Tran & Sokas, 2017). Coworking has emerged as one solution to address this trend of decentralizing workers, while providing a sense of inclusion and community.

Coworking Sites as Community

The tendency towards work becoming outsourced and subcontracted has left some workers longing for the sense of community that is assumed in traditional office environments. Coworking is a growing attraction to participants in part because of its elusive "working along, but together" behavior, which is also receiving the attention of academics (Waters-Lynch, et. al., 2016). American sociologist, R. Oldenburg (1989), coined the term 'third place' to describe places out of the home and the office where people convene and socialize in a free, informal manner. Research on 'third spaces' speaks to the importance of spaces that individuals seek

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[1] The term "knowledge worker" is frequently used in place of "white-collar worker". It was first defined by Peter Drucker in his book, *The Landmarks of Tomorrow* (1959). Drucker defined knowledge workers as high-level workers who apply theoretical and analytical knowledge, acquired through formal training, to develop products and services.

outside of their homes (first spaces) and traditional offices (second spaces), such as libraries, cafes, and public squares (Florida, 2002).

Figure 2 references coworking as a cross between workplaces for productivity and places for rest and enjoyment. Moriset asserts that coworking spaces are different from "third spaces" because they are not a place for one to go for leisure or recreation, like the concept implies. Coworking spaces are intended to "facilitate productive activities with other forms of interactions and relationships" (Gandini, 2015). Coworking particularly stresses collaboration and sociality, in addition to the traditional approach to productivity. The growing number of independent workers see coworking as an opportunity to avoid working alone and meet others to collaborate and socialize with.

Figure 2. Third Places and the Hybridization of Workplace
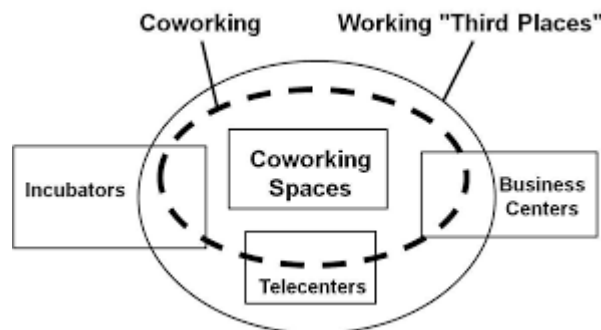
Source: Moriset, B. (2014).

Coworking is a location for independent knowledge workers to tackle challenges collectively. Although coworking members work in different professional fields, the shared interests among workers can encourage a sense of 'like-mindedness', which may foster new relationships and lead to collaboration. Conceptualizing coworking spaces as 'communities' is a partial description of their functionality (Potts, 2017). Members often share similar problems, and the existing sense of like-mindedness can foster solidarity and cooperation amongst coworkers. Collaboration is ultimately still focused on work-related issues, but simulates a team like office environment. In this sense, it offers a 'third space' to conduct work while also nurturing personal and professional relationships.

Summary

Coworking spaces are emerging as a preferred alternative office space, as opposed to a secondary option. As coworking evolves, the definition and function of the new work environments will also change. In general, the term 'coworking' encompasses a variety of flexible work environments and includes a variety of professions, as further chapters will describe. The coworking trend is predicted to increase as the contingent workforce grows. Coworking spaces are emerging to meet the needs of the mobile workforce, providing flexible, short-term workspace as needed; however, the independent nature of freelance work is detracting from the sense of community that workers enjoy in conventional office environments.

Existing literature describes the benefits of coworking spaces as providing an opportunity for community and inclusion among independent workers. Some coworking spaces place more emphasis on collaboration and teamwork in their business model, while others primarily function as flexible office spaces. Literature has identified the distinction between coworking spaces and 'third places', asserting that they are a hybridization of both. The general characteristics of coworking have been examined, and the various dimensions of their operations explained. All coworking businesses fall along a spectrum from providing basic services, to providing high-end amenities. Gaps in the research exist in discussing the relationship between coworking spaces and land use in urban areas. Little research exists regarding the role of coworking in urban planning, and their compatibility with surrounding land uses. There is need for further research on the role of local government and private sector businesses in harnessing the benefits of coworking spaces for communities.

This research examines the unique characteristics of coworking spaces, and how they operate in relation to surrounding land uses; their potential impact on economic development and the dynamics of the urban environment; and considers the role of the public sector to address the coworking trend.

This study uses a mixed-methods approach to answer the following research questions:

- What are the unique characteristics of coworking spaces, and in what zoning district are they located?
- What are the perceptions of coworking and their impact on land use and economic development?
- What role could the public sector to play in capturing the benefits of coworking spaces for economic development?

Study Area

The City of Portland was selected as the study area for this research because it has a high concentration of established coworking spaces. Coworking businesses in Portland serve a variety of neighborhoods, demographics and professions, and the city is saturated with freelance and contingent workers. Many of the original coworking spaces in Portland served tech industry start-up companies, but several more have opened in recent years to support a variety of diverse professions. The variation in coworking spaces in Portland makes the city ripe for research.

Figure 3. Location of All Coworking Spaces, Portland, OR

Source: ArcGIS
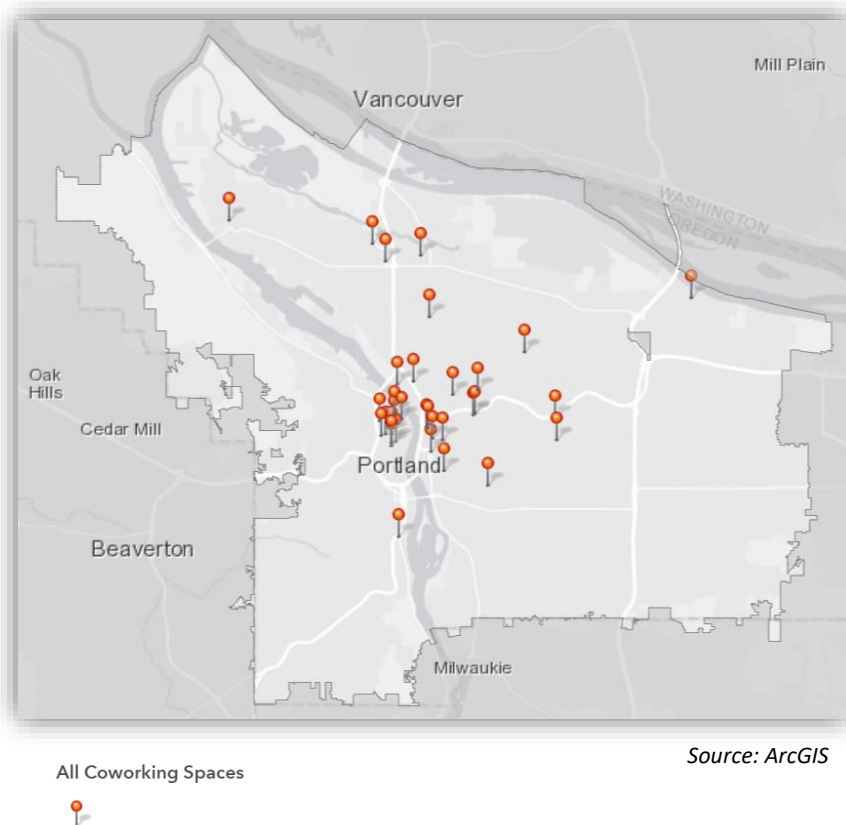
Method Selection

This study uses a mixed-methods approach to answering the research questions. A combination of interviews and descriptive analysis of land use and zoning in Portland informed the development of a coworking typology.

Descriptive Analysis

Through descriptive analysis, I identified the zoning districts and allowable land uses where coworking spaces are located. The purpose of this method was to illustrate how coworking businesses operate in the context of the urban environment. Understanding where coworking spaces generally locate helps identify differences in their characteristics, and develop criteria for each typology.

Coworking Database

Google searches and coworking websites were used to identify existing coworking spaces in Portland.[2] From these searches, 25 operational coworking spaces were identified and compiled into a coworking database. The coworking database includes information about membership fees, hours of operation, community programming, and other amenities unique to the space. This information was collected by researching individual websites of coworking spaces in the study area.

All 25 coworking spaces were contacted with a recruitment email to participate in this research. A total of six (6) responded to the request to participate, which exceeded my goal for this research. Because the six (6) participating coworking businesses are diverse in their location, size, price, and services, they provided the necessary variation to develop a typology. Information from the coworking database can be found in Appendix II.

Land Use Database

In addition to the coworking database, I developed a land use database that includes property characteristics, like zoning, building area, and neighborhood location, which I retrieved from the City of Portland's online zoning maps.[3] I searched the address of each business in my coworking database, and developed a spreadsheet of land use information. This information can be found in Appendix III.

To visually represent this land use data, I geocoded the addresses of each coworking space to find its latitude and longitudinal coordinates. Then I organized the data to create multiple maps using Arc GIS. The significance of the location and land use of coworking spaces will be analyzed in Chapter 4 of this report.

Interviews

This report includes primary data collected from oral interviews conducted in person and over the phone, and survey questionnaires. Interviews were a chosen

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[2] Coworking spaces were identified in the Portland Metro area through several websites: [www.coworking.com], [www.coworkingmap.org], [www.42floors.com], and [www.workfrom.com].

[3] City of Portland. 'Portland Maps'. [https://www.portlandmaps.com/?action_override=zoning]

method for this research to gather first-hand perspective on how coworking spaces function in Portland, and understand their unique characteristics. Interview questions were open-ended, allowing participants to offer insights about their coworking space's culture and atmosphere, influence on surrounding land uses, and predictions for how coworking spaces might enhance the local economy.

Participants:

- Managers / Owners (7)
- Members (21)
- Public Sector Workers (3)

Interview Process

To identify and contact potential research participants at the City of Portland, I first reached out to contacts at other agencies at the City, and requested an introduction to staff in the planning and economic development departments. Establishing a connection through a mutual contact was my primary method for contacting city staff. This strategy was ineffective, as city employees did not see relevance in connecting me with planners in the public sector. My secondary method was more successful, which was to send a recruitment email to the planning department and ask for volunteers to interview.

I interviewed a total of three (3) public sector planners, each employed at either the state-level, city-level, or within the urban renewal agency at the city. Questions were open-ended and directed towards understanding professional opinions about the impacts of the sharing economy and evolving work spaces in the Portland metro area.

I collected anonymous responses from coworking members at three of the study area coworking spaces. I compiled questions for coworking members into an online form which owners and managers distributed to their coworking members. The questions were similarly open-ended and anonymous.

Coworking Typology

I developed typologies of coworking spaces to organize the data I collected through the two research methods previously described. Qualitative research conducted through oral interviews and descriptive analysis of land use characteristics informed the typology development. The joint analysis of this research led to developing a typology that describes a variety of coworking business models in the City of Portland.

Typology Development Process

To create a shared understanding and common approach to evaluate coworking businesses, I developed a typology that categorizes the various dimensions of coworking spaces onto one spectrum. All coworking spaces, regardless of their unique characteristics, fall somewhere on the spectrum in Figure 4.

Figure 4. Coworking Typology Spectrum
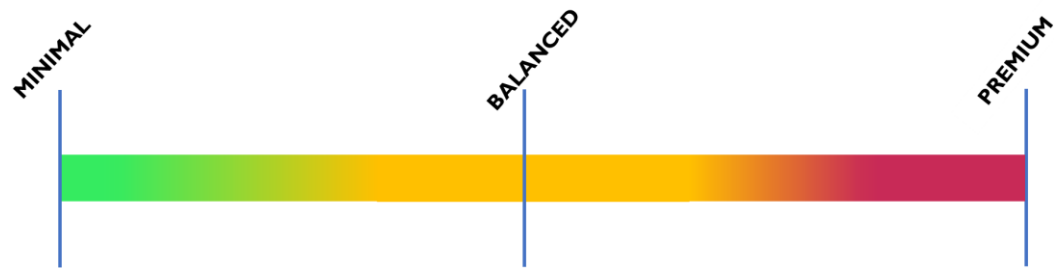
The three (3) typologies are: Minimal, Balanced and Premium. A brief explanation of them is provided below:

- **Minimal** – Low-cost office space with basic amenities
- **Balanced** – Moderately-priced office space with added amenities for those valuing both independent office space, and collective working
- **Premium** – All-inclusive, amenity-rich, offering regular programming and networking opportunities

Each of these typologies are discussed in further detail in the following section, as well as the many dimensions of coworking spaces which can exist within and between typologies. Typologies were developed based on criteria related to coworking spaces' atmosphere, location, design, and cost. Information gathered from the coworking and land use databases determined where coworking spaces fall on the typology spectrum.

A worksheet with criteria to identify coworking typology can be found as Figure 8 in Appendix V. The coworking typology worksheet can used as a tool to evaluate coworking spaces based on standard criteria. The worksheet has three (3) sections to evaluate the Characteristics, Amenities, and Design of the coworking space. The first section gauges where the coworking space initially falls onto the typology spectrum. The following two sections ask about the design and amenities of the coworking space. These sections assess the range of where the coworking space might fall on the spectrum between typologies.

The following section of this report will describe the descriptive analysis of coworking spaces relative to other land uses in Portland.

CHAPTER 4: LAND USE PATTERNS OF COWORKING SPACES

As coworking spaces evolve as a choice work environment, rather than an office alternative outlier, it's important to understand where they can locate per city zoning requirements. Because land uses are zoned based on their compatibility with other uses, it is necessary to understand the zoning codes coworking spaces operate under to assess their compatibility. This chapter describes the descriptive analysis of coworking businesses that were studied for this research.

Portland Zoning Compatibility

This research focuses on Portland's base zones to determine where coworking spaces are locating. Using the addresses and location coordinates in the land use database, I overlaid their location with the zoning layer available in Portland's online database. The coworking database of 25 spaces were located across nine (9) different base zones. As demonstrated in Figure 4, the location of coworking spaces on the zoning map shows that a variety of zoning districts contain coworking spaces.

Figure 5. Zoning Map of Coworking Spaces, Portland, OR
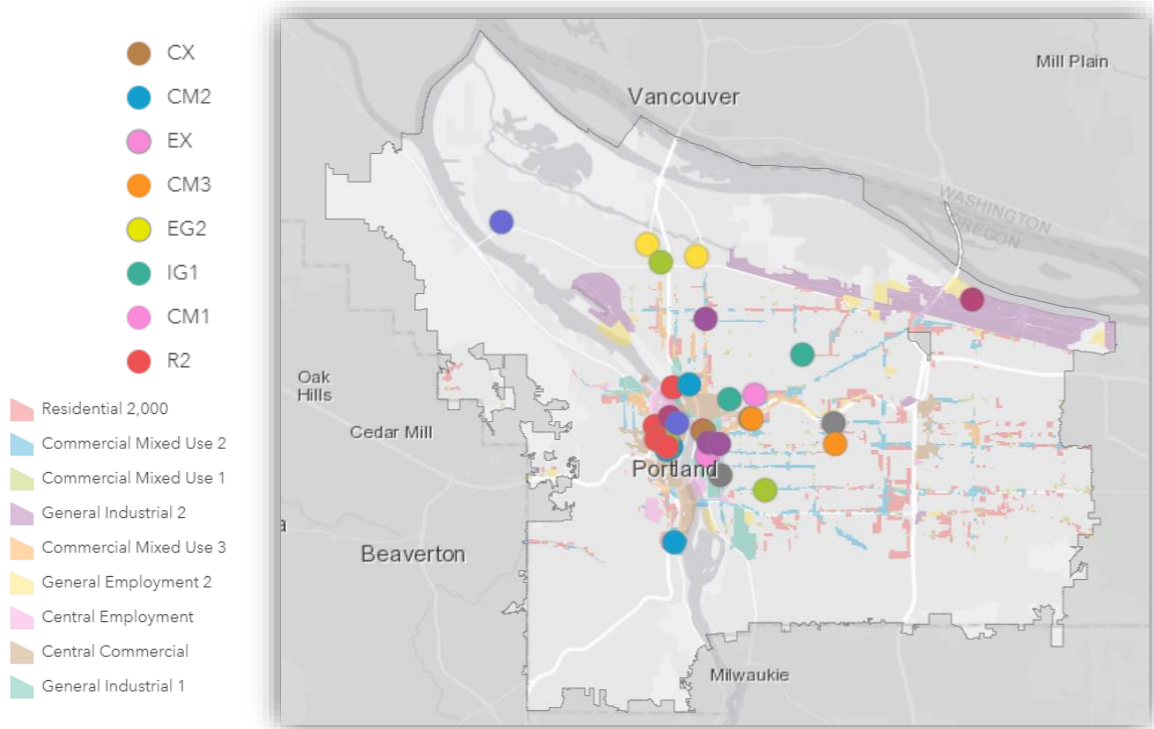
Source: ArcGIS

The base zoning districts where coworking spaces exist were researched further to analyze the intent of each zoning district and further assess the compatibility of coworking spaces within them. A description of each relevant base zone and the purpose of the zones as stated in Portland's Zoning Code is presented in Appendix IV (Portland Zoning Code, 1999).

From the perspective of current land use regulations in Portland, coworking spaces operate similarly to conventional office and service uses. They are regulated by the occupancy density, which impacts ingress and egress, as well as parking requirements. Because many dimensions of coworking spaces exist, it is challenging to apply the same considerations to all coworking spaces. Operations may be different among coworking spaces depending on their clientele. For example, a business with more 'hot desks' might see a higher volume of traffic flow from the building, as individual workers use the space as needed throughout the day.[4] Businesses that house independent entrepreneurs and project teams may need to host clients regularly at the space, which may also cause occupancy to fluctuate. Additionally, coworking spaces with a focus on hands-on creativity and product design may require unique considerations altogether. Coworking spaces come in all shapes and sizes, and the general categorization of them as office and service uses may be accurate for some circumstances, but not all. The real impact of coworking spaces on surrounding land uses is subject to the unique operations of that coworking space.

All properties in the City are in one of five (5) categories of base zones. Coworking spaces are located in three (3) categories of base zones: Commercial/Mixed Use, Employment and Industrial, and Multi-Dwelling. Each of these base categories includes zones with allowable uses and regulations. 'Coworking' is not called-out specifically in the zoning code, nor are terms indicating shared- or flex-work space. Rather, coworking is classified under the general land uses of 'Office Uses' or 'Retail Sales and Service Uses'. The descriptions of both land uses are described below per Title 33, Planning and Zoning Code:

- **Office Uses** are characterized as "activities conducted in an office setting that focus on the provision of goods and services, usually by professionals" (Portland, 1999, p. 920-6). There are two subgroups within the Office category: Traditional Office and Industrial Office. The primary difference between them is that Traditional Office uses require customers or clients to visit the site on a regular basis, whereas visitors to Industrial Offices are infrequent.

- **Retail Sales and Service Uses** are "involved in the sale, lease or rent of new or used products to the general public. They may also provide personal services or entertainment, or provide product repair or services for consumer and business goods" (Portland, 1999, p. 920-7). Examples from (4) subgroups are provided in this section, including 'Sales-oriented',

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[4] A 'hot desk' is a term used to describe desk space that is shared by multiple workers on different shifts or days, rather than belonging to one particular worker.

'Personal service-oriented', 'Entertainment-oriented', and Repair-oriented'. The first three in this list pertain most closely to coworking.

Coworking spaces fall into multiple land use categories because of their flexible nature and the service-oriented approach of their business model. As demonstrated in Figure 5, Office and Retail Sales and Service uses are permitted or conditional uses in each zoning district. Regulations in the zoning code apply to the physical space and capacity of the business rather than daily activities. In commercial and industrial zones, few limitations exist to any type of coworking space, whereas multi-dwelling residential zones do not permit offices but retail and service uses are permitted. The activities that occur in coworking spaces comply with existing land use designations, and are considered compatible with surrounding land uses; however, there are additional features of coworking that may be beneficial to the community, and should therefore be highlighted when considering where to locate coworking spaces in the future.

Figure 6. Land Use Categories of Coworking, Portland, OR

Commercial/Mixed Use Zones	CM1	CM2	CM3	CX
Office	L [2]	Yes	Yes	Yes
Retail Sales and Service	L [2]	Yes	Yes	Yes
Employment and Industrial Zones	EG2	IG1	IG2	EX
Office	Yes	L/CU [4]	L/CU [5]	Yes
Retail Sales and Service	Yes	L/CU [4]	L/CU [5]	Yes
Residential (2000)	R2			
Office	No			
Retail Sales and Service	L [12]			

L = Allowed, but with special limitations
CU = Conditional Use Review Required

[ ] = Bracketed numbers that correspond to additional regulations
[2] = CM1 commercial limitation. Each Retail Sales and Service and Office use has limitations to its square footage, except when located on a high classification of traffic street.*

[4] = IG1 commercial limitation. More than one Retail Sales and Service of Office Use on a site is a conditional use.*

[5] = IG2 commercial limitation. More than four (4) Retail Sales and Service or Office uses on a site is a conditional use.*
[12] = Retail Sales and Service limitation. Retail plant nurseries are a conditional use.*
* Descriptions were paraphrased from zoning code to provide context relative to coworking.

Key Findings

From this descriptive analysis, it is clear that there are few barriers to locating coworking spaces in the City of Portland based on the current zoning code. Coworking spaces are locating in areas that allow land uses for general office space and retail services, which are located in areas zoned commercial, industrial and residential, ranging from low- to high-density. The versatility of coworking businesses to locate where they can most easily meet the needs of their clients, demonstrates the natural order of private businesses operating for profit to serve the needs of the community.

The freedom coworking spaces have to locate in the City of Portland, and their compatibility with their surrounding land uses suggests that the public sector does not need to play a role in regulating these spaces. Economic development professionals might consider this characteristic of coworking as providing an opportunity to residents and businesses across the city. If benefits of coworking are apparent in Portland, coworking businesses may be identified as desirable assets to neighborhoods and the Portland community as a whole.

The following chapter will discuss findings from in-person interviews, phone interviews, and survey questionnaires to understand the unique characteristics of coworking spaces in Portland, and the perception of their impact on surrounding land uses.

CHAPTER 5: INTERVIEW FINDINGS

This chapter focuses on the specific interview questions that were asked of each group of research participants. The chapter is organized by first describing the interview question categories, then offering a summary of key findings in each category by interview participant. Summarized responses from each type of interviewee are presented in Appendix I – Interview Notes.

Interview Question Categories

A standard set of interview questions were asked of each group of interview participants: owners/managers, members, and public sector employees. Questions varied slightly based on the group classification, but all questions focused on three main components: characteristics of the coworking space, sense of community that exists between coworkers, and the influence of coworking spaces on urban planning and design for future office spaces.

Coworking Site Characteristics	Sense of Community	Urban Planning & Design
• Atmosphere and culture • Deciding factors for establishing and selecting the space	• Relationship building • Opportunities for private-public sector collaboration	• Predictions for future office design • Suggestions for Portland city planning

Owners/managers and coworking members were asked questions about characteristics of their coworking site, sense of community, and predictions for the future design of office development. Public sector employees were asked questions about their interaction with shared work spaces, partnerships and networks that exist or could exist between the public and private sector, and the potential impact of coworking spaces on surrounding land uses. A summary of responses from owners/managers, coworkers and public sector employees are presented below.

Summary of Findings

Coworking members, owners, and managers, as well as public sector staff, responded to interview questions and survey questionnaires related to their perception of coworking in Portland, and were asked to make predictions about its future in Portland. This section presents a discussion of summarized responses by interview question category, followed by a list of key findings from each category.

Coworking Site Characteristics

Coworking owners and managers decided where to locate their business based on proximity to existing amenities and transit options. Business owners intentionally located in areas that are convenient for their intended clientele to access. When members were asked why they chose their coworking space, nearly half responded that it was not their choice; their employers chose it for them. For those members who did choose the space, their reasons were primarily because of the space's amenities and the friendly, inviting atmosphere it offered. Respondents less frequently mentioned that pricing and location were deciding factors.

Overwhelmingly, coworking members reported the general atmosphere of their coworking space is respectful, friendly, and uplifting. Members collectively described their coworking space positively, indicating they appreciate the relaxed business-casual nature of the work environment, that also fosters focus, professionalism and productivity.

Public sector employees had an overall neutral perspective on the characteristics of coworking spaces. From a land use perspective, the city is more concerned with building structure and activity location than activities that happen within the structure. The public sector is aware of coworking, but it is generally not discussed in the land use planning realm. Prosper Portland, the city's economic development agency, tangentially supports coworking spaces when it funds their programming. This applies only to instances where the programming aligns with the strategic goals of the city. Public agencies, including Greater Portland, Inc., lease a coworking space downtown for a centralized location.

Key Findings

- Nearly half of coworking members had no choice in deciding their coworking space. This demonstrates the rising trend in businesses locating their workers in alternative offices, rather than centralizing them in one location.
- Deciding factors for members who willingly chose their coworking space were the community atmosphere and the amenities offered.
- Managers/Owners decided to locate their coworking space near existing amenities, including food trucks and transit stops.
- The public sector was ambivalent about the activities that happen in coworking spaces.

Sense of Community

Interview respondents overwhelming agreed that a strong sense of community exists within their coworking space. Members and managers offered a variety of examples to support this. Three primary reasons they think community is valued and promoted at their site is attributed to staff commitment to nurture community, individual coworkers' open and friendly attitudes, and the physical design of the space and amenities. Respondents from all interview groups noted there is a greater sense of community when a Community Manager is present at the facility to encourage engagement and interaction; however, multiple managers reported that not all of their members join to look for community. Members join to have a place to work, and the current group of coworkers influence the sense of community at the time. Overall, respondents agreed that a combined sense of ownership over the space and respect for the space of other members and operations managers/owners contributed to a respectful workplace culture.

When asked how relationships are built within coworking environments, members responded that spontaneous interaction in common areas allows for natural networking opportunities. Common interests identified through casual conversation often transition into developing business relationships. Coworking managers further encourage relationship building through planned community events, happy hour, and socializers. Several interviewees reported landing a project contract or work at other companies through casual interactions and introductions among coworkers.

Fewer interview respondents reported a sense of community existing beyond their coworking space, either with other coworking businesses or with the local government. One manager recalled hosting an event with local businesses, including coffee roasters, real estate, insurance firms, and others, to help boost local business interactions. Coworking managers want to connect more regularly with other coworking businesses, but a collective group does not formally exist. Several managers are involved in their local chamber of commerce or neighborhood organization, but fall short of being engaged directly with local government, including interacting with the economic development agency. Ultimately, coworking members and managers build relationships within their own circle of workers and businesses. They do not often cross paths with coworkers or managers from other shared work spaces.

Public sector employees reported that coworking spaces have the potential to positively impact their surroundings. Coworking spaces tend to build relationships with local businesses by buying food and beverage from neighborhood vendors, as well as potentially adding foot traffic before or after normal work hours. Coworking businesses also support local businesses by reducing the overhead costs typically required to lease office space. Encouraging collaboration in these spaces, while lowering barriers to entry provides more opportunity for small businesses to succeed and eases the exchange of information across sectors. Public sector respondents noted that the City may be interested in supporting opportunities for shared office space if there are broad benefits to the community, especially in terms of racial equity.

Key Findings

- A strong sense of community exists among members and staff within coworking spaces, but the coworkers are less connected to the outside community, and other coworking spaces in the city.
- Relationships are built between members within coworking spaces through spontaneous interaction in common areas and at organized events. Managers and owners strive to build relationships with local businesses.
- Coworking business managers and owners have interest in establishing organized partnerships with other coworking businesses.
- The public sector recognizes coworking spaces help small businesses by reducing the overhead costs associated with leasing commercial office space, and would support coworking spaces if they aligned with city goals.

Urban Planning & Design

Interview respondents agreed that they expect coworking spaces to continue increasing in popularity in the coming years and offered suggestions to the City of Portland for accommodating the influx. Interviewees identified issues of office space affordability and the desire for flexibility as reasons for the increase in coworking spaces. All respondents predicted more coworking spaces will open with a mix of sizes, though some predicted that the standardized definition of a "coworking space" will evolve from a one-room, open concept community layout, to mean a mixture of private offices, meeting rooms, and open space. This definition of coworking omits the minimalistic approach in which many coworking spaces choose to operate. Most respondents believe that traditional office culture will not disappear, but coworking will begin to match in popularity.

Affordability of office space is an increasing hurdle for small and startup businesses. Large corporations have more flexibility to experiment with coworking spaces, and are starting to send their workers to satellite offices to give them the coworking experience. The public sector does not play a role in the market value of commercial space, but it could play a role in changing the perspective of coworking in the minds of commercial real estate brokers. Coworking managers reported that commercial real estate brokers see coworking as a threat because of the flexibility of their operations.

The success of coworking businesses largely depends on their location and proximity to amenities, especially public transit. Managers and members suggested that coworking spaces would benefit from increased public transit options and services, while public sector employees neither mentioned or refuted this. Managers noted that, as remote working and local coworking options emerge, workers may travel to their office less frequently and therefore mitigate traffic issues.

The emergence of coworking spaces in smaller neighborhoods outside of the city center has many implications for the future layout of cities. If contingent workers had the option to work at a local neighborhood coworking space, their commute times and overall distance traveled would be reduced, which would affect the traffic patterns of the city as whole. Considering coworking managers and owners

reported to locate near existing amenities, neighborhood business owners would likely capture and benefit from the activity from coworkers. Conversely, public sector interviewees noted that as land shifts away from industrial uses to commercial uses, it will be important to monitor who is benefitting from it. Adaptive reuse of buildings and repurposing of land is an effective economic development strategy, but also implies a shift away from low-skill manufacturing work, and causes an increase in property values.

Managers reported an interest in collaborating with the public sector to coordinate office space for the emerging contingent workforce. They see value in working with local government to assist coworkers with connecting their skills and knowledge with customers and businesses that could use their services. Managers suggested including coworking businesses in Portland's economic development initiatives. This might identify a new role for the public sector in coordinating shared office space for the contingent workforce.

From a land use perspective, coworking spaces are just like other typical office spaces. Public sector staff discussed potential code modifications to include coworking as a unique land use. This would allow the city to apply regulations and incentives, including modifying parking ratio requirements based on proximity to transit, or determining coworking as compatible with additional land uses. Locating coworking spaces farther from the city center, specifically in residential neighborhoods, may provide opportunities for smaller coworking businesses to open. Smaller neighborhood office spaces might serve a different demographic of working professionals, that would not typically travel downtown to work, but needs a space outside their home. The public sector interviewees explained that land use questions arise when the city strategizes how to design for complementary uses. As the coworking trend continues, more businesses of all sizes will employ remote workers, and have an interest in coworking spaces.

Key Findings

- Coworking spaces of all sizes will continue to emerge in the market, although the widely accepted definition of coworking may shift from a small, open-concept work environment to the high-end, amenity-rich office environment.
- Large corporations are experimenting with coworking spaces. They are expected to play a bigger role in supporting the coworking business model by stationing their employees at remote coworking spaces instead of centralizing them at one office.
- Locating smaller coworking spaces outside the central-city has implications for the future of city design, as well as the potential to create opportunities for local economic development.
- Coworking managers are interested in collaborating with local government to coordinate locations for shared office space and connect coworkers with prospective clients.

CHAPTER 6: TYPOLOGIES OF COWORKING

Previous sections of this report describe the flexibility and unique services of coworking businesses. Their compatibility with surrounding land uses allow them to locate in a variety of zoning districts, and the versatility of services that coworking spaces offer appear to be attractive to diverse professions. Additionally, workers report high satisfaction with the coworking business model, and the opportunities they provide for independent employees to work alongside others. While coworking businesses share general common features and services, all coworking business models have unique characteristics that differentiate them from each other.

To better understand the multiple dimensions of coworking spaces in the context of both land use and their unique characteristics, three (3) typologies were created to classify them. This chapter first describes the typologies in detail and provides criteria for their development. Next, the typology is applied to the businesses in the coworking database, demonstrating that each typology tends to cluster in specific areas of the city. Finally, examples are provided for the various dimensions of coworking describing the six (6) businesses that were studied for this research. A discussion of findings from this analysis is presented at the end of this chapter.

Typology Descriptions

Based on descriptive analysis and dozens of interviews with coworking members, owners, managers, and public sector employees, I developed three (3) typologies for coworking businesses that exist in the City of Portland. They are defined by the land use characteristics, amenities and design that coworking spaces offer. The following section identifies the general criteria that define the three (3) typologies.

Minimal

Characteristics	- Low-cost - Located in low/med/high-density zoning districts - Memberships are primarily for independent workers. - Space is typically leased over a short-term, daily or monthly time period.
Amenities	- Basic office supplies are available, including printers and Wi-Fi - Programming is not scheduled
Design	- Open-concept, with communal tables and workspaces. - No private offices, conference rooms, or full kitchen facilities are offered.

Balanced

Characteristics	- Moderately-priced - Located in medium- to high-density zoning districts - Membership types vary from individuals to small teams of workers. - Space is typically leased on a weekly and monthly basis.
Amenities	- In addition to basic office supplies, staff may be on site to provide programming for members to collaborate outside of the coworking space.
Design	- Communal workspaces and open desks are available for members. - Private conference rooms, offices, and phone booths may also be available for members. - A full kitchen is available for use, with some snacks and drinks provided for members..

Premium

Characteristics	- High-end pricing - Located in high-density zoning districts - Memberships are large teams of workers, departments of corporate businesses - Space is leased primarily through monthly and yearly contracts.
Amenities	- A community manager is on site to develop programming for members and coordinate events for networking, socializing, and relationship building.
Design	- Open-concept working is available, but members primarily work from dedicated desks and offices. - Conference rooms, phone booths, and meeting areas are available. - An open kitchen is available, where snacks and drinks are provided for members. - Baristas, bartenders and chefs may be hired as staff, to serve the coworking members.

The three (3) typologies were developed using information from the coworking database, land use database, and interview findings. Specific examples for how the typologies are applied are explained in the following section.

Typology Patterns

The typology criteria were applied to the 25 businesses in the coworking database, and businesses were mapped with their assigned typology, as displayed in Figure 6. Applying this typology to individual businesses provided further insight into where coworking spaces are locating in Portland relative to their shared and unique characteristics. After applying this typology, patterns emerged indicating that their preferred location is related to density, land use intensity, and proximity to amenities.

Premium spaces concentrate in the downtown area, close to transit and other amenities. A cluster of Premium spaces is located within the city center, near other offices and services, while one Premium space is close to the airport. Balanced spaces locate both in and outside downtown, primarily along transit corridors. They are in medium- to high-density areas and are also near services. Minimal spaces are located in all areas of the city. They are in the city center and just outside downtown, as well as in lower density areas to support local neighborhoods. The similarities and differences in where coworking spaces locate is important to understand when considering the diverse characteristics of each coworking space.

Figure 7. Typology of Coworking Spaces, Portland, OR
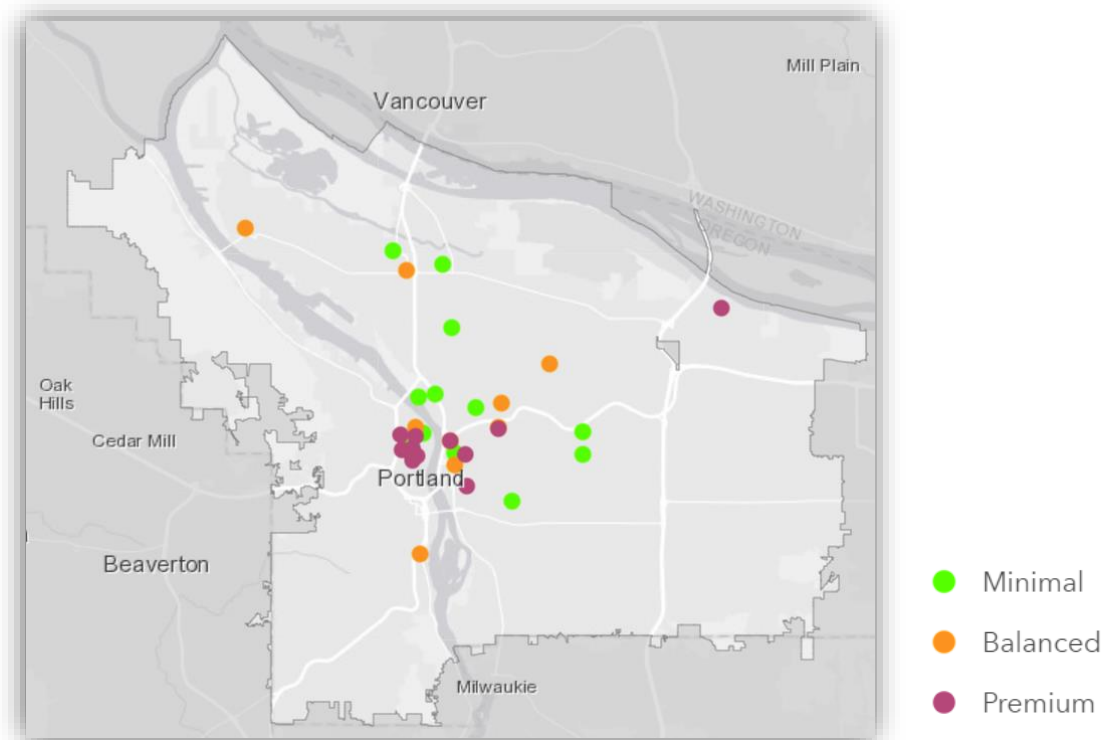
Source: ArcGIS

The typology helps to understand the intensity of individual coworking spaces and where they could be appropriately located in the city. It also provides insight about where these businesses want to locate. This is interesting because the typology tends to determine where spaces are located in the city, while the different

dimensions of spaces can vary across all typologies, making each space dynamic and unique.

Dimensions of Coworking Typologies

While coworking spaces have many similarities, they also have unique and distinguishing characteristics that set them apart from each other. This is intentional, as their aim is to make a niche for themselves in the open market. The purpose of considering the dimensions of coworking spaces is to further contextualize this research, underscoring the variety that exists within the coworking typologies influences where they are positioned on the spectrum. The six (6) coworking spaces interviewed for this research are described in detail below. They are grouped by their typology, and labeled by their dimension:

- Independent
- Social Impact
- Entrepreneurial
- Intentional Community
- Market Scale

Each coworking space was labeled with a dimension to further differentiate it from spaces that may fall within the same typology and positioned on the typology spectrum. Their unique amenities and design qualities are presented as follows.

Minimal Coworking Spaces

Two coworking spaces fell into the Minimal typology. They attract clientele that is primarily interested in working independently, and enhancing their own professional development. The spaces are found in zoning districts with varied densities, but primarily locate in low-density residential and low-density mixed-use commercial zones. Spaces provide the basic amenities, have open-concept work spaces, and offer minimal space to conduct work privately.

Pep Coworking Shop

Typology: Minimal | Independent

Pep Coworking Shop is not framed as a collaboration space. Rather, it advertises as

a local neighborhood shop where remote workers can escape their house or usual coffee shop, and work productively in a shared office setting. It offers basic amenities and low-cost memberships. Pep is considered an independent diimension of coworking. It has 8-15 members at a time and is not geared toward networking, although member-gatherings are scheduled upon request if there is interest among the current members.

Source: Pep Coworking Shop

Encorepreneur Café

Typology: Minimal | Social Impact – Entrepreneurial

Source: Encorepreneur Café

Encorepreneur Café provides opportunities for members to start an 'encore' career. It supports active adults in various fields of work to stay engaged and achieving purpose through productivity. Members join Encorepreneur to share their skills and knowledge, and act as mentors to other members. This coworking space has a social impact dimension to its mission, along with entrepreneurial characteristics. The space holds networking events for outside groups, and has a private conference room for group meetings and presentations. Coworkers typically sign up and work individually for daily or monthly memberships. Members recruit new clients to develop their businesses through their connections at Encorepreneur.

Balanced Coworking Spaces

The range between typologies varies based on the design of a coworking space and the amenities it offers. The following coworking spaces fell onto the typology spectrum between Minimal – Balanced, and Balanced – Premium. They are located in higher density and mixed-use commercial zones, and offer more amenities than Minimal spaces. In addition to common work space, they also provide private desks, offices, and conference rooms.

Collective Agency

Typology: Minimal – Balanced | Intentional Community

Source: Collective Agency

The mission of Collective Agency is to promote workplace democracy and allow for all coworkers to have ownership and a voice in decisions made for the space. It is entirely focused on intentional community, and members develop and lead any programming for themselves. The owner believes a space cannot be called a "coworking space" unless it has an open-office

environment, with shared work spaces, and open atmosphere. The coworking space provides one conference room for members to use when needed, and a casual kitchen area to share. Collective Agency falls in between a Minimal and Balanced typology because it offers the basic design and amenities of a Minimal space, while prioritizing a healthy work culture and atmosphere among members. The atmosphere is the marketable component of Collective Agency. In addition, the space is located in the downtown central business district, with easy access to transit and other amenities.

Urban Office

Typology: Balanced – Premium | Entrepreneurial

Source: Urban Office

Urban Office is a coworking space that serves a variety of professionals, ranging from early- to mid-level in their career. Coworkers join the space independently or in small teams. There are many private offices and conference rooms, that are balanced out with as many common work areas and open desks. Urban Office falls between the Balanced and Premium typologies because it has initial characteristics of a Balanced typology, like its pricing and location, while providing the design and some amenities of a Premium space. There is a sense of community among coworking members, but not all members participate in member programming. The community culture is a beneficial by-product of having a comfortable place to work. Urban Office provides consistent programming for its members, but is not marketed for their sense of community.

Premium Coworking Spaces

The following coworking spaces are the high-end coworking spaces in Portland. Both WeWork and Industrious have a high membership capacity; provide snacks, drinks, and happy hour activities for their members; and contract with large project teams and corporate departments to lease the space.

Industrious

Typology: Premium | Market Scale

Industrious frames itself as a customer-service based coworking space. It facilitates the development of all business sizes by providing space for them to work, and connecting them with other professionals through their national network.

Source: Industrious

Industrious consults with entrepreneurs at all levels, including those just starting out, entering into a new market, or working with a team that is ready to expand. They locate near existing amenities, in the heart of downtown, and aim to provide services to their clients to enhance all aspects of their work environment. Industrious is considered a Premium coworking space, because it offers a range of communal areas and desk, private offices and conference rooms, as well as regularly scheduled coworker events. It's Market Scale dimension refers to its business model of providing space for large teams and businesses, and as a result has the capital to provide high-end, all-inclusive services to its members.

WeWork

Typology: Premium | Market Scale

Source: WeWork

WeWork is a coworking business that started in the U.S., and has set the stage for Premium coworking spaces world-wide. WeWork purchases entire floors in buildings in large metropolitan cities and rents to a variety of workers, including private individuals, freelancers, startups, artists, businesses, and firms. In Portland, WeWork renovated the vacant U.S. Customs Building downtown to rent out as collective work spaces and meeting rooms. The shared work environment provides opportunities for cross-collaborative work, and allows members to organize events

for their own businesses. Community Managers are also employed by WeWork to organize events exclusively for coworking members to further encourage collaboration. The demand for collaborative work spaces has exploded in recent years, and WeWork has been at the forefront of modeling what future work environments can look like. In addition to the deluxe design of its workspaces, WeWork offers all-inclusive amenities, including baristas, bartenders and chefs to serve members, as well as on-site staff to assist with daily operations. WeWork has a Market Scale dimension because it continues to provide more impressive services to its members as membership increases, and the market determines the scale and capacity of its operations.

Key Findings

Based on the interviews and descriptive land use analysis, basic characteristics of coworking spaces can be classified into three typologies: Minimal, Balanced, and Premium coworking spaces. Each typology is used as a starting point to gauge where a coworking space falls on the typology spectrum. Coworking spaces can then be further classified into a typology after reviewing the design features and amenities they offer.

Typologies of coworking locate in similar patterns, but dimensions of coworking spaces locate in a variety of zoning districts and land uses, without following a pattern. There is much variety among the six (6) coworking spaces studied for this research, in terms of their mission and intent of their operations. While they all fall into one of the three typologies on the spectrum, they each maintain their unique characteristics.

Dimensions of coworking spaces provide more context for the unique operations and services each space provides. Further defining spaces with a qualifying dimension helps decipher the characteristics that can be expected from a particular coworking space, and provide more clarity among the variety of emerging workspaces.

CHAPTER 7: KEY FINDINGS & RECOMMENDATIONS

Coworking spaces are emerging to fill a need in the market for commercial office space. As opportunities increase for independent, contract-based employment, a larger portion of society will take advantage of the lifestyle and flexibility it offers. Not everyone will want to give up the security of "traditional" employment, and many professions still need their employees to be centrally located. The public sector could play a role in considering the future trend of office work environments. By strategizing where to locate various coworking typologies, cities may have opportunities to harness the benefits shared workspaces have to offer, both to the surrounding neighborhoods and to their members. Key findings in this chapter synthesize information gathered from previous academic research, interviews and coworking analysis by typology. Recommendations are presented for both economic development professionals in the public sector and those interested in owning or joining a coworking business.

Key Findings

Through this research, four (4) key findings emerged from across all methods. The findings are detailed in this section, followed by recommendations for both economic development professionals and coworking members and owners.

Coworking serves professionals employed in a variety of industries and sectors.

Coworking is evolving from being solely for the young, hip, and urbane, and accommodates diverse professions and businesses. It was once a niche work option for tech industry workers and solo entrepreneurs, but has expanded across sectors, professions and industries.

Independent contractors and self-employed freelancers remain a constant demographic of coworking spaces; however, it was reported during interviews that large- and mid-sized corporations are also experimenting with coworking spaces. Corporations are assigning small project teams to entire departments of employees at coworking facilities rather than housing them at one centralized location with other employees from the business. Employees in this situation reported that their employer chose the coworking space without their input. The fact that larger corporations are seeking out coworking spaces for their employers indicates that this trend is not going away soon.

Additionally, coworking members are highly satisfied with their work environments. Many described their coworking space as having a sense of community, providing professional support, and displaying respect for all workers. Because these are attractive qualities to most people in the workforce, it can be predicted that workers will continue to be drawn to coworking spaces.

Workers value a strong sense of community, both among fellow coworkers and local business establishments.

While coworking business owners reported proximity to existing amenities and public transit as priorities for locating their businesses, coworkers emphasized choosing their space based on the inviting atmosphere and unique amenities it offers. This finding implies that community is important to coworkers and business owners.

During interviews with coworking managers and owners, many reported a desire to build relationships with local businesses in the area. Coworkers also reported a desire to make connections with professionals outside the coworking space through shared partnerships. While networking in this way is not an organized opportunity currently, many interview participants were receptive to the idea of nurturing connections with other coworking businesses and local business establishments.

Typologies suggest where coworking spaces will locate. Dimensions of coworking spaces exist across zoning districts.

Coworking spaces have few barriers to locating in a variety of zoning districts across the City of Portland. As shown in the descriptive analysis, coworking spaces are currently located in nearly every zoning district in the city. Although each coworking space has unique characteristics, it is clear that there is considerable flexibility in coworking as a business model. This finding demonstrates that despite the varied dimensions of coworking that exist, all coworking spaces have similar characteristics that position them in certain areas of the city.

As the typologies were applied to existing coworking spaces in Portland, the analysis revealed that the three typologies of coworking spaces tended to locate in a pattern. Premium coworking spaces are clustered in the central business district; Balanced coworking spaces located around the edge of downtown, and near major transit corridors; and Minimal coworking spaces locate in lower-density areas and neighborhoods outside the central city. Applying the typology allows city planners and business owners to predict where certain types of coworking spaces might be successful, and understand what types of spaces would be most compatible with surrounding land uses.

Local government is reacting to coworking, rather than proactively seeking understanding of the trend.

Planning and development from the public sector is reactive, rather than proactive, to the issues cities face. Although a rising trend has established that coworking spaces will continue to serve the market and increase in popularity as the independent workforce continues to grow, the government does not see a need to step in. As interviews with public sector employees revealed, coworking spaces are not on the radar of city planners, because they are not causing a need for government regulation. They shared the general perception that shared workspaces provide benefits to members of the community, as they are meeting a need for providing office space. Public employees also agreed that coworking may

hold the potential to increase economic activity in the area. Ultimately, the public sector has not yet identified a role to play to address the emerging new office type.

This finding is not surprising, as the government traditionally steps in only to regulate, rather than support. However, because coworking spaces may act as a tool to boost economic development, they might also serve as a tool to "future-proof" spaces for the future workforce. For example, if an economic downturn causes major industries to decline, the diversity of workers occupying one workspace could soften the overall hardship on the community. Coworking spaces are not dependent on one type of worker, which would theoretically allow them to continue operating in an uncertain economy. Supporting coworking spaces may provide a safeguard economic activity.

This finding highlights and opportunity for cities to get ahead of the shifting work environment and plan for the type of work spaces that meet the needs of their community.

Recommendations

The overall findings from this research inspired four (4) recommendations for both economic development professionals and coworking business owners and members, to further harness the benefits of coworking spaces. This section describes the recommendations.

Public Sector: Economic Development Professionals

Ask your community if they want a coworking space.

Communities might want a shared workspace, but are unaware of the concept of coworking. By first bringing awareness to coworking as another option for office space that also encourages community and relationship building, both city staff and residents can take advantage of the benefits coworking offers. Cities should survey their community members to determine if there is a need or interest in attracting a coworking space. If a need or interest is determined, cities can evaluate the typology of coworking space that would best suit the demands and desires of community members. Likewise, coworking businesses that serve a niche market may be attracted to locating in communities if their services are requested. The economic development agency could play the role of matchmaker, and connect communities and people in search of flexible office space with the type of coworking provider that best meets their needs.

Incentivize 'coworking' as a tool for economic development.

Developers and entrepreneurs are playing an essential role as a decentralizing source of urban innovation. Cities may have an interest in locating collaborative working spaces more strategically in and around their cities. Coordination with coworking site owners is necessary if cities are to develop special incentives for coworking spaces to locate in their neighborhoods and community.

Coworking establishments are for-profit businesses that independently recognize where they should locate to be successful. The emergence of coworking and shared

workspace is an example of the market meeting the demand for more flexible work spaces. As this research explains, zoning is not an obstacle to newer and mixed uses involving coworking spaces, allowed them to emerge freely. Coworking serves clients by providing office space, as well as offer opportunities for relationship building and networking. Because of this dual function of coworking spaces, economic development agencies should consider incentivizing 'coworking' as a tool to encourage to land use unique from other office uses. Incentivizing coworking through strategies such as property tax abatements and tax credits, may allow cities to harness the benefits of coworking spaces in more diverse areas of the city.

Take inventory of coworking spaces that currently exist and classify them as a specific typology.

When startup businesses, entrepreneurs, and other independent workers are considering new geographic areas to move, the city will be ready to support them in their community. If cities take inventory of coworking spaces and categorize them in a meaningful way, they will be prepared to support the contingent workforce. Offering market data with available listings of coworking spaces will streamline the decision making process for new businesses and workers interested in relocating to your community.

Similarly, businesses seeking places for their workers to locate can easily identify which coworking typology would best suit their needs, and attract business to cities that can provide that. New coworking spaces might potentially pop up to fill the increasing gap in office space, if they know they have encouragement from the city. Cities may consider deputizing economic or community development departments to take the lead in identifying coworking spaces as a community development tool in strategic planning documents.

Private Sector: Coworking Business Owners, Managers, and Members

Establish a coalition of coworking owners, members, and local businesses.

City planning and development has a close relationship with the private sector and market-driven influences. The two sectors need to work together to provide opportunity for residents and maintain a functioning, prosperous economy. For this reason, collaboration around coworking spaces is essential.

There is an opportunity for both the public and private sectors to harness the power of shared resources that happens organically in coworking spaces. Developing partnerships would allow all organizations to effectively organize, analyze, and empower the business community while supporting the community as a whole. Cities can use coworking spaces as a tool for relationship building across sectors.

A coalition of coworkers initiated and led by coworking business owners, managers, and members, and supported a public sector entity would benefit the coworking community as a whole. The coalition could play an important role in connecting

coworking businesses to each other, and connecting prospective entrepreneurs to locations to work. Cities might consider adopting this approach through their economic development departments.

Limitations to Research

Qualitative research of this nature is heavily dependent on the individual skills of the researcher and more easily influenced by the researcher's personal biases and idiosyncrasies. My consistency in asking questions and adequately gathering responses may have shifted with different subjects, based on their personalities and willingness to interact with me. Rigor in asking questions was more difficult to maintain among participants that had many thoughts to offer and those who did not offer as much information.

The subjectivity in analyzing and interpreting the information gathered from interviews and questionnaires has potential to sway the findings and results of the research. In addition, the interviews were conducted both in-person, over the phone and through written responses to questionnaires. My presence during data gathering may have affected the subjects' responses.

Issues of anonymity and confidentiality can present problems when presenting the findings. My approach to this research was to keep participants' responses anonymous and not affiliate individuals' names with their coworking business or professional organization. Because of confidentiality, the findings across all coworking spaces were kept general, and do not necessarily reflect the work environment of specific coworking spaces. This limits the research to understanding the general nature of all coworking spaces, rather than identifying the unique characteristics of spaces based on their clientele, size, or location, for example.

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APPENDIX I: INTERVIEW NOTES

This appendix contains the summarized interview notes by question from coworking owners and managers, coworking members, and public sector employees. Specific questions are listed for each group of interviewees. Summarized responses are bulleted without attribution to coworking businesses or interviewees to maintain confidentiality.

Appendix I-A: Coworking Business Owners and Managers

Coworking Business Owners and Managers

What is your job title and/or profession?

Coworking and Business Operations Owner; Collective Agency	Community Manager; Industrious
Freelance Designer and Art Director; Pep Coworking Shop Owner	Community Manager; WeWork
Sales and Marketing Manager; Encorepreneur Café	General Manager; Urban Office
Manager; Encorepreneur Café	

About Your Coworking Site

What attracted you to locate your business at this specific site?

- The owner also owns the adjacent property, and started a coworking operation in vacant office space for additional income.
- The owner chose the location because transportation is convenient and there are amenities nearby that attract the demographic of coworkers they are seeking to support.
- Proximity to amenities including food carts, public transit. Downtown location is more of a destination
- The amenities were already here - Pioneer Square, heart of downtown, and easy access to transit.

What is the general atmosphere or culture like your coworking space?

- Vibrant community culture
- People are starting to develop partnerships, professional partnerships, not

necessarily friendships.
- Swings depending on who's a member at the time. It can be lively and talkative, but more focused and quiet too. Age, experience, type of work dictate culture.
- Professional but relaxed
- Personal and professional relationships are built within the coworking space.

What do you think your coworking space provides that "traditional office" spaces do not?

- Hospitality company, not a space provider.
- Location - serving a population outside of downtown
- Smaller coworking spaces allow for personalize connections. It's easier to negotiate what services clients want with what the coworking space can offer.
- Flexibility and ownership of the space. Clients are allowed to operate lights, heaters, open curtains, adjust the space to their needs and desires.
- Cozy Community. Coworking is the benefit of having coworkers without the drama

Sense of Community

Does your coworking space partner with other businesses? If so, for what purpose?

- Local businesses have offered breakfast/lunch to get coworkers to sign up with them or attract their business, including a natural health clinic, real estate company, coffee roasters have done tastings, free mini massages.
- There have not been many partnerships with local government agencies.
- Some coworking businesses have tried to collaborate with other coworking spaces without success. One manager mentioned they would like to have a locally owned coworking passport to highlight local spaces.
- One coworking site uses a "coworking visa" to connect with community members. (https://coworkingvisa.net/)
- Several coworking managers are involved in the local business association and neighborhood association.

What benefits does your coworking site offer the community?

- One coworking business hosts a book club that is open to the public.
- Managers have talked to neighboring businesses about using their coworking space for event space, to evolve the space into a community building center.
- Affordable and professional office space, supplies and equipment.
- Provides opportunities for cultural enrichment, i.e. language exchange workshops and activities at low-cost of free to the public

How do coworkers develop relationships?

- They meet each other by working near each other. Managers introduce people with similar work focuses
- Formal events lead to hearing common interested. Some people have gotten jobs at other companies through members that work here but continue to work at their coworking space.

Examples:

- o Most examples are of coworking members helping each other with their own professional development, but not as frequently do people help each other with their individual clients.
- o Coworkers started a crafting circle at members' houses
- o One member recently published book and thanked another coworking member
- o Coworkers share each other's services and skill sets.
- o Networking between coworking is typical
- o Law firms connect with marketing professionals at the coworking space.
- o Catering services that work for coworking spaces are connected to professionals who need their services outside the coworking space.

Impacts to Urban Planning and Design

What suggestions would you offer the City of Portland to support coworking spaces?

- Increased public transit options
- Provide opportunities for smaller shops that are not in the city center (residential/neighborhoods)
- Include coworking businesses in the economic development initiatives in Portland.
- Assist coworkers with skills and knowledge with making connections to businesses and local customers that want their services.
- Provide more open public parking lots
- The perspective of coworking for commercial real estate brokers needs to change. Coworking spaces are service-minded, like retail and commercial land uses, but because they are so flexible, commercial real estate sees them as a threat.

What do you predict the design of future office spaces will look like?

- More corporations will start sending their workers to satellite offices rather than providing offices for them. This will increase the need for coworking spaces.
- The typical coworking space will evolve from a one-room, open-concept community workplace to include a mixture of private offices and meeting rooms alongside open common areas. The word 'coworking' might not be

used to describe this.

- Traditional office culture won't disappear, but coworking continue increasing in popularity.
- Fewer coworking spaces will act as tenants and start to own the property they do business on.

How do you see the future of coworking spaces affecting the layout of cities?

- As remote working and local coworking options increase, workers may only go into the office occasionally. This would help with the traffic problem in Portland.
- Portland residents are loyal to their neighborhoods. If more coworking spaces emerged in residential areas, it would support this loyalty and further emphasize keeping everything local.
- Coworking spaces provide an opportunity for people to work closer to their homes, reduce their commute times, work in smaller settings, and not have to go downtown to access what they need for work.
- Smaller coworking spaces will emerge in neighborhoods, outside of the central downtown business district. People would be able to stay in their own neighborhood for work, and pay lower membership fees for smaller coworking businesses.
- Locating large coworking spaces downtown without providing adequate parking is negatively impacting the surrounding area.

What do you think is the most important thing I should know about coworking, and how it will impact the City of Portland?

- There is a national and corporate shift towards coworking right now. The pendulum may shift back towards smaller, local coworking businesses.
- Portland is a progressive community. People have a lot of options and they pick coworking spaces that best suit their needs. Each coworking spaces has nuances and niches, and if the space fits the business, people will go there.
- Coworking is very competitive. Some of the larger coworking businesses may not be as successful as they seem to be.
- Coworking helps give freelancers more credibility. Having a space helps clients understand the work of freelancers a little bit better.
- Landlords and building owners do not see a difference between coworking spaces and offices, studios, or small businesses. They do not see more value in renting to a coworking space than a similar office/commercial use.

Appendix I-B: Coworking Members

Coworking Members

What is your job title and/or profession?

Software Engineer	**Business Development**
Director of Sales	**Solutions Consultant**
Site Reliability Engineer	**Aspiration Customer Experience**
General Manager	**IT Consultant**
Principal, Consultant on Communications, Fundraising, Marketing	**Jewelry Consumer Advocate, Stylist & Appraiser**
Analytics Consulting	**Customer Service**
Management	**Financial Planner**
Senior Program Manager, Operations	**Director of Northwest**
Capacity & Resource Program Manager	**Business Owner**
Project Manager	**Temp / Financial Tech**
Creative Director and part owner of a content creation agency	

About Your Coworking Site

What made you choose a membership at your current coworking space over others?

- Nearly half (40%) of members indicated their company chose the coworking space for them, and they were not involved in the decision.
- Amenities and atmosphere offered was the next most prevalent reason mentioned for choosing the coworking space (30%)
- Location and pricing were the least mentioned as reasons for choosing the coworking space (20%)

What is the general atmosphere/culture like at your coworking space?

- Overwhelmingly, members reported their coworking space to be professional and friendly, with uplifting and positive attitudes.
- Several members characterized their coworking space as respectful and business-focused.
- Only one member reported that the open atmosphere is distracting at times.
- Members reported their environment is relaxed, and business casual, while being a productive working environment.

Sense of Community

What do you think contributes to a sense of community at your coworking space?

- Responses focused around three themes:
  - Individual Coworkers
  - Coworking Staff
  - Design of Space and Amenities Provided
- Staff and events were mentioned most frequently as being a main contributor to the sense of community at their coworking space. Organized coworking events provide opportunities for members to get to know each other. Staff are dedicated to creating a welcoming experience for all coworkers, and encouraging connections between members. Respondents pointed to the time and effort that staff put into organizing events as a positive sign of dedicated customer service.
- The design and amenities offered by the coworking space was the next

most frequently mentioned factor contributing to creating a sense of community. Open office design, comfortable furniture, round tables and big windows in community areas, and the general layout of the space were reported to allow members to interact with each other at various times throughout the day. Respondents called out the kitchen area specifically as a successful way to encourage a sense of community, noting that food, coffee, fruit water and beer in conjunction with open seating is helpful to start conversation and build community.

- Respondents reported that individual coworkers bring a friendly attitude to work. Most people are kind, hardworking, and have a willingness to be authentic which contributes to a unique and interesting community.

How do coworkers develop relationships at your coworking space?

Respondents offered three primary ways for how relationships are developed:

1) Through spontaneous interaction in shared open space
2) Through planned events, including happy hour and socializers
3) Through coworking staff efforts to introduce coworkers and encourage networking.

- Nearly half of respondents (47%) mentioned that relationship building happens in shared open space, particularly in the kitchen. When coworkers are in this environment, they share ideas while sharing meals, and identify common interests among themselves. Providing amenities like coffee and snacks throughout the day, encourage social interactions.
- Coworkers indicated that planned community events are another major driver in building relationships. Organized events allows all coworkers to be invited to the gathering, and provides space for discussion about hobbies and interests outside of work. Getting to know coworkers better helps build relationships within the coworking space.
- Staff efforts to build relationships were also mentioned by respondents. The weekly newsletter, staff introductions between coworkers, and the thoughtfulness of community managers were all attributed to helping coworkers build relationships.

What do you think the major differences are in the way coworkers use office space, compared to employees in "traditional" office spaces?

Coworking members had a variety of diverging responses to this question, including many who were uncertain about the difference.

- A handful of coworkers responded that coworkers are more respectful and take better care of their space than workers in a traditional office might. Community managers enforce the rules for using the communal space, including the use of conference rooms, to avoid people using spaces without reserving them first.
- Coworkers responded that their business is able to adjust its size within the

coworking space to grow or shrink based on their needs at the time.

- Some coworkers mentioned that a coworking space with amenities like theirs would be otherwise unaffordable if they were to own and operate it. Small businesses can generally not afford to locate downtown because commercial real estate is so expensive.
- There is more networking and relationship building across different sectors and professions. Businesses can promote their products and connect with local partners.
- Interactions are "less casual" than if all coworkers were employed by the same company. Many coworkers reported a more professional, flexible and creative atmosphere at their coworking space than they would get at a "traditional" office.

What benefits does your coworking space offer the Portland community?

Coworkers responded differently to this question. The most common response was that coworking spaces help support local businesses. They buy coffee, beer, and food from local vendors in the area to support them, and naturally support the small businesses that have memberships at their coworking space.

Urban Planning & Design

How do you see coworking spaces being integrated into the design of future office development?

- The majority of coworkers responded to this question saying that coworking spaces are likely to increase in popularity, partially out of necessity due to affordability of office space, and partially because of the flexibility they provide workers. Coworking models help smaller companies grow at their own pace, and allow them to expand into more space at they need it.
- Coworkers also predicted that older buildings will be repurposed for office space. Coworking models are an easy fit for adaptive reuse of older buildings.

How do you see the current rise in coworking affecting your profession in the future?

- Coworkers responded that the rise in coworking will benefit and improve small businesses overall. Adding a human element to remote working brings balance to the virtual technology world.
- It will be easier for employees to work remotely with the emergence of more coworking spaces.
- It's suggested that it would be an incentive to offer employees a coworking space that would keep them "comfortable and stimulated". Coworking helps bring happiness into the everyday work experience.
- Coworking helps creative professionals work better, faster and smarter. Corporations will catch on if they haven't already.

What do you think is the most important thing I should know about coworking, and how it will impact the City of Portland?

- The need for coworking is increasing as job responsibilities are becoming more virtual and remote. Coworking spaces will increase, and more people will participate.
- Coworking spaces might allow for more localized work, rather than large central offices in business parks. It's a great model for small businesses and companies.
- Coworking spaces are like a small business union. By sharing vibrant, thriving office space workers can focus on growing a business and enjoying a high quality of life without having to be a Fortune 500 enterprise.
- Being adaptable and human in the tech industry is the best way to help cities grow. Portland is a tech hub, so knowing how to handle the lifestyle that comes with it is key.
- One coworker is surprised at how few people really understand what a great opportunity coworking is. It allows small businesses to have a prime location with amenities at an affordable price.
- Corporations are finding ways to get into coworking spaces and experiment. They assign a portion of their marketing team to a coworking space and allow for others in their company to test out the work style.
- Parking is the biggest issue when establishing a large coworking space.

Appendix I-C: Public Sector Workers

Public Sector Workers

What is your job title and/or profession?

Economic Development Specialist (State)
Associate Planner, Economic Development Policy (Portland BPS)
Project Manager (Prosper Portland)

Perspective of Coworking Spaces

What interactions have you had with coworking spaces in the Portland Metro area?

- While working in the private sector, I sought to secure space for my then-consulting firm of eight people.
- From a land use planning perspective, the topic of coworking has not come up.
- Coworking isn't typically discussed in the public realm.
- Prosper Portland funds programming that supports the vision of the city, specifically programming supporting racial and income equity. This type of programming at coworking spaces is supported by the city's economic development agency. Depending on the goals of Prosper Portland at the time, and how the programming aligns with the strategic goals of the city, Prosper Portland might consider supporting it.

Are you aware of any public agencies that have memberships at coworking spaces? If so, what are they used for?

- Greater Portland, Inc. (GPI) has an agreement with WeWork.
- The Portland Building had to relocate about 17 floors of offices during the renovation. It's possible they might have partnered with a partner space.

Public-Private Sector Collaboration

In your opinion, what role might coworking play in expanding networks between public sector leaders and local community organizations?

- Portland's land use code leads with equity in mind, specifically with race. If there are opportunities in creative office space to enhance and promote racial equity in terms of broad benefits to the community, the City might be

interested in supporting it. If the culture of coworkers exacerbates racial inequality, it doesn't matter how innovative and creative they are, or contribute to increased revenue. If the impact is not felt equally among all people in the community, specifically Black, Latin, and Native American communities, the City does not pay attention to it.

In your opinion, do coworking sites impact businesses or activities in the surrounding area?

- They might be a more intensive land use because more people are coming and going after or before normal work hours. There are more options for using the space for a longer period of time, and the fixed nature of a cubicle doesn't seem as flexible for moving people and their laptop around. Offices are used to store stuff.
- Coworking spaces can positively impact surrounding businesses as they bring down overhead costs and encourage collaboration. In other words, they lower barriers to entry and increase exchange of information.
- The presence of an office in the traditional industrial area east of downtown has also lead to an increased demand for retail. It's not clear if that's not driven by the office. There's more residential growing on that side too. An increase in affluence in the area increases the demand for commercial and retail options.

Impacts to Urban Planning and Design

How do you see coworking spaces being integrated into the design of future office development?

- Leave design to the developers and builders.
- Coworking is great for adaptive reuse.
- As landowners are looking for tenants, coworking will be on their radar as a type of office use. They will need to think about how a coworking space will support the other uses that are in the building, if it's a multi-use office building.

If coworking spaces continue to grow in popularity, what do you predict the design of office space will look like in the future?

- I predict more coworking spaces will open, with a mix of sizes.
- The city might consider modifying parking ratios requirements for coworking spaces. For example, reducing or increasing them based on proximity to transit. Square footage of coworking spaces might change parking requirements.
- Coworking started for creative people, and freelancers, and now big corporations like Google have shifted the game, by requiring their workers to find their own spaces to work. As more corporations catch on to this, more coworking spaces will emerge to meet the needs of mobile workers.
- Coworking spaces might start integrating other services for people, like child care.

Do you see a need for land use changes to address the growing influx of coworking spaces in Portland?

- Land use planning looks at the general use and form of the building from the outside. Most planning agencies are agnostic about what happens within the building.
- There is no real negative impact. However, we have to be cautious if industrial land starts to be converted into creative office space. Industrial zones are pretty important in Portland. From an equity standpoint, we need to consider who is benefitting from converting industrial space to creative office space. Zone changes have the potential to replace lower-skill manufacturing jobs with space for more highly educated employees.
- Coworking spaces are just office spaces. The land use questions come up when the city strategizes how to surround it with complimentary uses. People are choosing to work from home, and at home you have the amenities that you surround. The beauty of coworking spaces are that they are office space

What do you think is the most important thing I should know about coworking, and how it will impact the City of Portland?

- Whether it's shared space or dedicated cubicles, the City doesn't really care in terms of the zoning code. If there is demonstrated evidence that it supports the city's policies and goals, they would do what they can to support that.
- The city has roles in regulating, incentivizing, and supporting co-production.

Is there anything you would like to add?

- There's nothing unusual about coworking from the public sector side. People aren't asking questions yet, because people still see coworking as some sort of tech thing, and very much a white-persons world and not inclusive. We're not quite there yet, but we could be.
- Every business model is going to have their customer. That will drive their typologies, and guide the future of the coworking industry.
- An entire community and movement proceeded WeWork. Coworking is a response to market demands.
- The city views coworking spaces as a low cost option for work spaces. They are affordable for new businesses. The city doesn't know how much work is done informally at coffee shops or informal work areas. Generally, Portland sees coworking as a good thing, and a product that helps business thrive. But it's a bad thing if it's overpriced and empty. There is no incentive to build a flexible office space more so than traditional office space.
- Entrepreneurship requires collaboration. Coworking spaces can be a tool for early stage companies to get started.

APPENDIX II: COWORKING DATABASE

Coworking Business	Membership Rates		Hours of Operation
	Hot Desk	Dedicated Desk	
^H Hackerspace	$300/month		9:00am-6:00pm, M-F
ADX Pro	$430/month		9:00am-5:00pm, M-F
Brightside Coworking			7:00am-11:00pm, daily
CENTRL Office			8:00am-5:00pm, M-F
CENTRL Office	$275/month	$395/month	24 hours
CENTRL Office			24 hours
Clean Slate Coworking Studio			
Collective Agency	$250/month		24 hours
Collective Agency	$395/month		8:30am-5:30pm, M-F
Consensus Art Building			9:00am-5:00pm, M-F
Desk and Mug	$250/month		24 hours
Encorepreneur Cafe			9:30am-5:30pm, M-F
Enthusiasm Collective	$200/month	$250/month	24 hours
ExecuTech Suites			24 hours
HatchLab PDX			9:00am-6:00pm, M-F
Industrious Portland	$275/month		24 hours
Joint Space	$395/month		8:30am-5:30pm, M-F
NedSpace	$295/month	$495/month	9:00am-5:00pm, M-F
Next Northwest			
Odd Pod Cowork Office	$275/month	$475/month	24 hours
openHAUS Coworking	$295/month	$499/month	9:00am-6:00pm, M-F
Pep Coworking Shop			9:00am-6:00pm, M-F
Portland Coworking			9am-6pm, M-F
TENpod Dumbbell			24 hours
TENpod Fremont			
TENpod St Johns	$295/month	$380/month	9:00am-6:00pm, M-F
The Hive at Leftbank			
The Perelene			
The Weller Society			24 hours
Urban Office			24 hours
WeWork	$395/month		8:30am-5:30pm, M-F
WeWork			
WeWork	$365/month		

APPENDIX III: LAND USE DATABASE

Coworking Business	Description	Zoning	Zoning Description	Building Area (ft2)	Neighborhood
Brightside Coworking		CM1	Commercial Mixed Use 1	N/A	Mt. Tabor
Collective Agency	Retail	CM2	Commercial Mixed Use 2	28,524	Richmond
Desk and Mug	Retail	CM2	Commercial Mixed Use 2	7,216	North Tabor
Urban Office	Office	CM2	Commercial Mixed Use 2	17,657	South Portland
Pep Coworking Shop	MF Residential	CM2	Commercial Mixed Use 2	89,988	Kenton
TENpod St Johns	Retail	CM2	Commercial Mixed Use 2	12,968	St. Johns
Consensus Art Building	Mixed-Use	CM2	Commercial Mixed Use 2	2,128	Grant Park
HatchLab PDX	Office	CM3	Commercial Mixed Use 3	18,352	Kerns
openHAUS Coworking	Retail	CM3	Commercial Mixed Use 3	5,658	King
^H Hackerspace	Retail	CM3	Commercial Mixed Use 3	4,500	Kenton
Odd Pod Cowork Office	Mixed-Use	CM3	Commercial Mixed Use 3	16,660	Kerns
Joint Space	Garage	CM3	Commercial Mixed Use 3	2,085	Eliot
Collective Agency	Office	CX	Central Commercial	137,076	Portland Downtown
WeWork	Office	CX	Central Commercial	69,617	Pearl District
WeWork		CX	Central Commercial	N/A	Portland Downtown
WeWork	Office	CX	Central Commercial	249,481	Portland Downtown
NedSpace		CX	Central Commercial	N/A	Portland Downtown
CENTRL Office	Office	CX	Central Commercial	59,647	Portland Downtown
The Hive at Leftbank	Warehouse	CX	Central Commercial	45,445	Lloyd District
Encorepreneur Cafe	Office	CX	Central Commercial	237,769	Lloyd District/Sullivan's Gulch
Enthusiasm Collective	MF Residential	CX	Central Commercial	954	Old Town
Industrious Portland	Office	CX	Central Commercial	110,000	Portland Downtown
ExecuTech Suites	Office	EG2	General Employment 2	42,000	Parkrose
Clean Slate Coworking Studio	Warehouse	EG2	General Employment 2	20,697	Piedmont
CENTRL Office	Office	EX	Central Employment	36,800	Pearl District
CENTRL Office	MF Residential	EX	Central Employment	155,183	Kerns
The Perelene	Office	EX	Central Employment	2,560	Hosford-Abernethy
Portland Coworking	Office	EX	Central Employment	19,650	Buckman
TENpod Dumbbell	Office	EX	Central Employment	54,392	Kerns
Next Northwest	Garage	EX	Central Employment	9,000	Buckman
The Weller Society	Warehouse	IG1	General Industrial 1	19,960	Eliot
ADX Pro	Warehouse	IG1	General Industrial 1	10,000	Buckman
TENpod Fremont	SF Residential	R2	Residential 2,000	768	Beaumont-Wilshire

APPENDIX IV: LAND USE AND ZONING ANALYSIS

Table 1. Descriptions of Zoning Districts with Coworking Spaces, Portland, OR

Title	Zoning District	
33.130	**Commercial/Mixed Use Zones**	
	Commercial Mixed Use 1	CM1
	Commercial Mixed Use 2	CM2
	Commercial Mixed Use 3	CM3
	Central Commercial	CX
Description		
The commercial/mixed use zones are intended to serve local neighborhood areas, larger districts, as well as broader citywide or regional markets. The regulations promote uses and development that support healthy complete neighborhoods—places where people of all ages and abilities have safe and convenient access to the goods and services they need in their daily life, and where people have the opportunity to live active lifestyles. The zones encourage quality and innovative design, and facilitate creation of great places and great streets.		
Title	**Zoning District**	
33.140	**Employment and Industrial Zones**	
	General Employment 2	EG2
	General Industrial 1	IG1
	General Industrial 2	IG1
	Central Employment	EX
Description		
The employment and industrial zones are for areas of the City that are reserved for industrial uses and for areas that have a mix of uses with a strong industrial orientation. The zones reflect the diversity of industrial and business areas in the City. The zones differ in the mix of allowed uses, the allowed intensity of development, and the development standards. The regulations promote areas which consist of uses and developments which will support the economic viability of the specific zoning district and of the City. The regulations protect the health, safety and welfare of the public, address area character, and address environmental concerns. In addition, the regulations provide certainty to property owners, developers, and neighbors about the limits of what is allowed.		
Title	**Zoning District**	
33.120	**Multi-Dwelling Zones**	
	Residential (2,000)	R2
Description		
The R2 zone is a low density multi-dwelling zone. It allows approximately 21.8 dwelling units per acre. Density may be as high as 32 units per acre if amenity bonus provisions are used. Allowed housing is characterized by one to three story buildings, but at a slightly larger amount of building coverage than the R3 zone. The major types of new Title 33, Planning and Zoning Chapter 33.120 8/22/18 Multi-Dwelling Zones 120-3 development will be duplexes, townhouses, rowhouses and garden apartments. These housing types are intended to be compatible with adjacent houses. Generally, R2 zoning will be applied near Major City Traffic Streets, Neighborhood Collector and District Collector streets, and local streets adjacent to commercial areas and transit streets.		

Source: Title 33, Planning and Zoning, (Updated: August 22, 2018).

APPENDIX V: COWORKING TYPOLOGY WORKSHEET

Below is the master worksheet to assess the typology of coworking spaces. This worksheet can be used by economic development professionals, coworking business owners, and freelance workers to evaluate coworking spaces based on standard criteria.

Using the Worksheet

There are three (3) sections of criteria in this worksheet: Characteristics, Amenities, and Design. The Characteristics section of this worksheet should be completed first, to initially place the coworking space on the typology spectrum. The characteristics of a coworking space, including its capacity, physical size, cost, and zoning location, will first determine how a coworking space is classified.

The following two sections list criteria related to Amenities and Design. Based on the initial placement of the coworking space, the user will fill out either the Minimal, Balanced or Premium column. Each amenity and design criteria will be marked 'Yes/No' in that column, depending on the unique services coworking space offers. The number of criteria marked 'Yes' will be totaled and given a point value.

Points in the column will reach a number between 0-14. This worksheet suggests that coworking spaces with the following point values should be assigned the following typology:

- 0-4 points = Minimal
- 5-10 points = Balanced
- 11-14 points = Premium

This worksheet is intended to be a guide to creating a shared understanding of the type of coworking space under consideration. Applying diverse evaluation criteria to businesses place them more accurately on the typology spectrum. For example, if a coworking space is first considered Minimal based on its Characteristics, it may be placed more suitably in the Balanced typology when Amenity and Design criteria are considered.

Disclaimer

User discretion is necessary in the application of this worksheet. Coworking spaces are multi-dimensional and offer services that are unique to their business. This worksheet is meant to be a tool for gaining initial understanding of the basic operations of a coworking space. Typologies are intended to be flexible, as coworking spaces will not fall neatly into any one of the three classifications.

Figure 8. Coworking Typology Evaluation Master Worksheet

Coworking Business	Minimal			Balanced			Premium		
Characteristics	Yes	No		Yes	No		Yes	No	
Membership Fees:			< $350/mo			$350 - $650/mo			+ $650/mo
Flex Desk									
Dedicated Desk									
Monthly									
Day Pass									
# Members			< 20			20 - 150			+ 200
Square Footage			< 1000 sf			1000 - 20,000 sf			+ 20,000 sf
Zoning District									
24-hour access									
Amenities	Yes	No		Yes	No		Yes	No	
Cleaning Services		x			x		x		
Child Care		x			x		x		
On-Site Staff		x		x	x		x		
Programming		x			x		x		
Snacks/Drinks		x		x	x		x		
Printer/Copier	x			x			x		
Office Supplies	x			x			x		
Design	Yes	No		Yes	No		Yes	No	
Open Office Concept	x			x			x		
Communal Tables	x			x			x		
Private Desks		x		x	x		x		
Private Conference Rooms		x		x	x		x		
Phone Booths		x			x		x		
Kitchen		x		x	x		x		
Café/Bar		x			x		x		
Total	**4**	10		**9**	10		**14**	0	