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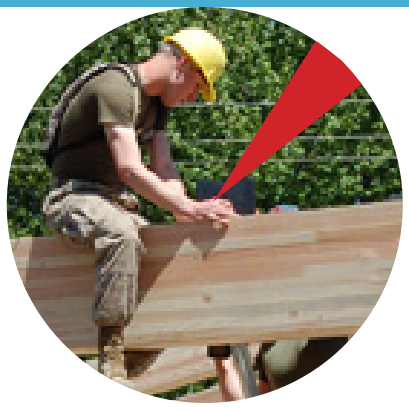
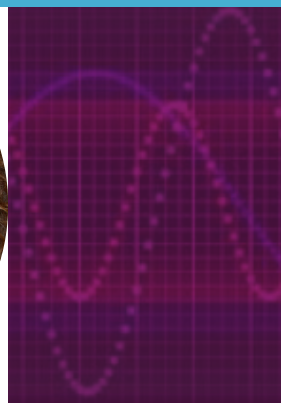
Lane Livability Consortium

Regional Data Baseline

Assessment and Next Steps Report

March 2014





For additional tools and resources related to this and other topics and projects supported by the Lane Livability Consortium, visit the Livability Lane Toolkit webpage:

www.livabilitylane.org/toolkit

LIVABILITYLANE Toolkit

Acknowledgements and Disclaimers

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Report Team
The Lane Council of Governments (LCOG) prepared the Regional Data Baseline Assessment and Next Steps Report as a project of the Lane Livability Consortium, which was funded through a Sustainable Communities Regional Planning Grant from the U.S. Department of Housing and Urban Development. Regional partners provided significant matching resources for the project. The report was developed under the direction of the Regional Data Advisory Committee, a body of 17 data consumers and managers representing over a dozen local agencies and organizations. LCOG thanks the committee, Lane Livability Consortium Project Manager Stephanie Jennings, additional working groups and other partner agency staff for their significant contributions, efforts and support in developing this report and its supporting documents.

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Executive Summary

Throughout the work of the Lane Livability consortium it has become apparent that sharing and leveraging community data is very important to the analysis and decision making of planners and elected officials in our region. Many area agencies are developing and using data in new ways to assess needs and community conditions, to target limited resources, as well as to monitor performance over time. The heavy reliance of many Consortium tasks on data highlighted the long standing on ongoing need for data.

Yet, the availability and accessibility of data is highly variable both within agencies and for members of the public. Because understanding and accessibility of data is such a resounding and important part of robust and transparent planning processes, it is essential that we take steps to increase knowledge and sharing of key data sources.

The purpose of the Data Inventory and Next Steps Report is to assess existing data collection and uses and determine whether any key gaps exist for measuring long-term outcomes as identified in the grant. In short, this Report organizes, addresses, and emerges from, broad regional data needs.

1.1 Project Approach

The development of the Data Plan included four major process steps, as follows:

Task 1: Develop and distribute a regional data survey
Task 2: Form an Advisory Committee to oversee and contribute to "Data Plan" efforts
Task 3: Develop a Regional Data Framework and Inventory
Task 4: Develop Recommendations & Next Steps

Regional Data Survey

A survey was developed and distributed to staff from agencies within the Lane Livability Consortium, as well as additional partner agencies. Response to the survey was good, with over 130 respondents representing 30 agencies. The responses represented a broad range of organizations at rates generally proportional to local staff numbers within each category. Among these at least 15 were government agencies, at least were 6 non-profit agencies and even some for-profit organizations were included. Also of note is the fact that over 40 areas of professional expertise were represented in the survey results.

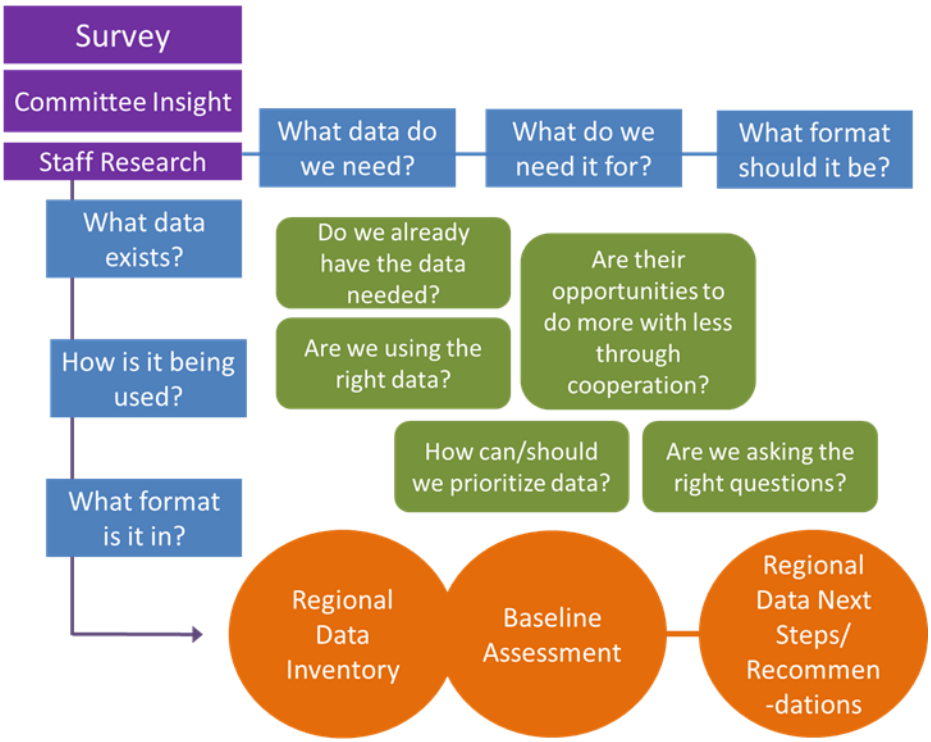
Regional Data Advisory Committee

An advisory committee was organized in late summer of 2013 and had their first committee meeting on September 27, 2013. The committee was made up of 17 members representing 13 regional organizations and provided review and feedback on all products developed for this task. Involvement by the committee was realized on a number of levels, from attendance at committee meetings to extensive support in the development of draft and

final materials. Committee participation was invaluable to the project, and it is fair to say that this report is the committee's report.

Figure E-1 provides a general overview of the methodology that the Committee established for performing the next steps of the project, including development of a baseline assessment of data and for informing a set of recommendations and next steps.

Figure E-1: Regional Data Baseline Assessment and Next Steps Report Methodology



A well-received survey of local agency and organizations provided a high level characterization of data users, data use, data availability and basic data needs. That high level understanding was combined with the greater detail of Advisory Committee insights and Staff research to form what constitutes a baseline assessment of data as it currently exists within the region. The next steps and recommendations emerged from an evaluation of this assessment.

Regional Data Framework and Inventory

The development of the regional data framework and inventory consisted of three key steps, as follows:

1. Development of a Data Inventory Framework
2. Compilation of data resources and completion of a Regional Data Catalog
3. Analysis of Existing Data Sharing Networks

These steps are summarized below.

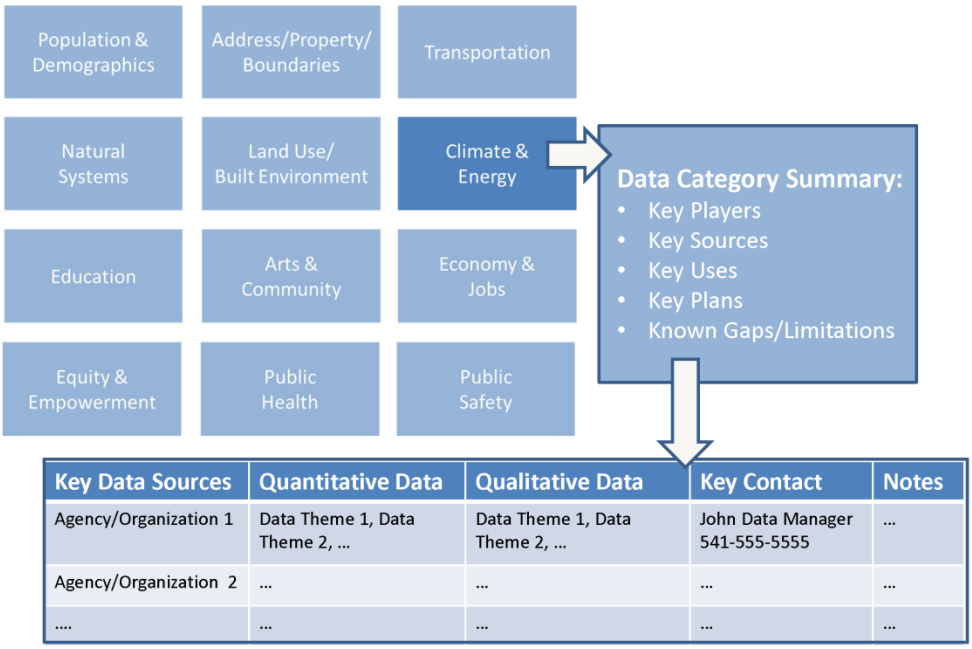
Data Inventory Framework

A key task in the development of the Regional Data Baseline Assessment and Next Steps Report was the development of a data framework for the data inventory. Significant time at the

Advisory Committee level was dedicated to the development of a framework for an inventory of data. Ultimately, time and resource constraints necessitated a basic framework approach.

The fundamental concept was to provide a resource for improved access to, and understanding of, data in the region, as well as provide a central tool in the evaluation of (or ability to evaluate) what data gaps exist. Figure E-2 provides a basic introduction to the contents of the Lane Regional Data Catalog (Appendix B).

Figure E-2: Overview of Regional Data Catalog Inventory Framework



Data Catalog

After the framework was developed, staff from different agencies inventoried data available at their respective agencies, culminating in the development of a regional data catalog. The catalog provides summary information on data by topic area, as well as a listing of specific data sources within each topic area, sorted by agency. The summary of each of the 12 data topic areas includes a listing and location for key data sets, uses for data, forums for data sharing, as well as information on data access, collection, and other information.

Data Type

There is a tremendous variety of data within the region and it is important to address important distinctions between data types. Spatial data, often referred to as GIS data, is information which has an explicit geographic location. This data can be mapped. This is a data format that is growing in popularity and application. Tabular data is contained in spreadsheets and data bases, and although it may have "spatial" elements (e.g. City or State) it does not yet have any expressed spatial reference.

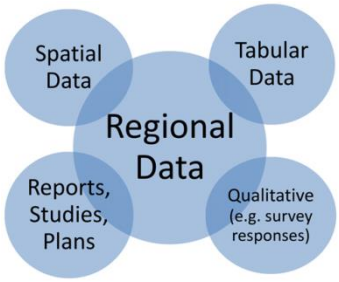


Figure E-3: Data Types

Qualitative data exists in the form of ideas or comments. Survey responses are a good example. They are not easily quantified. Related, but different are reports, studies and plans. These contain context and storytelling which is important data which cannot be easily "quantified." Each data type plays a vital role in planning and decision making within the region.

Data Sharing Framework(s)

An analysis of the data sharing frameworks that are currently in existence was completed in order to build a betterunderstanding of the current structures that exist for data sharing, and how those could be built upon to further enhance regional data sharing.

1.2 Key Findings

Throughout the process, a number of key observations and findings emerged that would influence the development of the final recommendations:

Data Survey

The following key observations were drawn from the Data Survey:

- **The region contains key data content managers.** The majority of data in the region is found within four agencies, City of Eugene, Lane County, City of Springfield and Lane Council of Governments.
- **There is a broad way that users access data and incorporate data into their work**. Although most survey respondents rely upon data that has already been collected, though many also collect their own data and provide value added synthesis and analysis to existing raw data.
- **Data is used in a number of different capacities to support work in the region.** The survey provides a clear indication of the ubiquitous reliance local agencies have on data within the region. They use it to understand current conditions, anticipate trends and inform the public and decision makers. The survey also shows a prevalent desire to improve data access and quality to achieve these goals.
- **Key areas for data improvement were identified.** Demographic, Economic and Social Equity & Environmental Justice data stand out as data which are viewed by respondents as both important and in need of improvement
- **There is support for enhanced data sharing.** Survey responses, in general, appear to be supportive of the idea of a centralized "information commons," that could improve data access, understanding and quality.
- **Data is most valuable when collected annually and at the city level.** Although the preference for data geography and collection frequency varies, the most frequently identified in the survey are annual data and at the city level.

Regional Data Advisory Committee

Through their series of meetings, the Advisory Committee members identified the following key data needs and challenges:

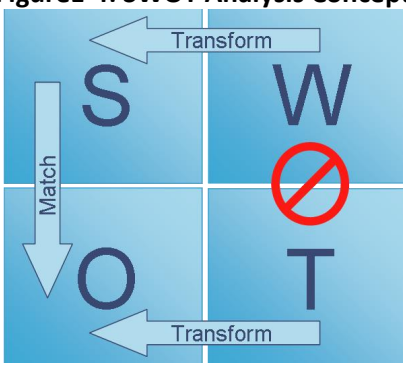
- Data sharing. Committee members noted a challenging lack of resources for sharing data, as well as the. Data limitations, appropriateness and quality were also noted in high frequency.
- Data continuity. Committee members also noted the threat that poor data continuity poses to the sharing of data.
- Data limitations, appropriateness and quality were also noted in high frequency. The committee's comments closely match those provided by survey respondents.

SWOT Analysis

Using the feedback from the Advisory Committee, survey results, workshops summaries and staff research, a Strengths/Weaknesses/Opportunities/Threat (SWOT) analysis was done in order to identify potential strategic steps the region could take to improve data acquisition, analysis, and sharing.

A S.W.O.T. Analysis is a useful technique that has its origins in the business world. Weaknesses and Threats should be addressed through efforts to transform them into Strengths and Opportunities, while Strengths should be addressed in a manner that matches opportunities.

FigureE-4: SWOT Analysis Concept



The following key strengths, weaknesses, opportunities and threats were identified:

Strengths

- **The regional GIS partnership** is a valuable existing example of effective data sharing. The Regional Land Information Database (RLID) creates a means of gaining access to data and understanding what data is available. The Cooperative Project Agreement (CPA) is an example of how regional GIS partners have identified an intergovernmental funding mechanism and management structure. Within this approach, regional data is treated as an organizational asset and not as a "one time" product.
- **The work of the Lane Livability Consortium**. The Consortium has provided unparalleled opportunities for regional staff to convene, to collaborate and to share. This is a unique and significant strength.

Strengths (Continued)

- **Institutions of Higher Learning**. These intuitions of research of learning create unparalleled opportunities for data creation, analysis and access. Opportunities exist for additional connections including the University of Oregon Library's Local and Regional Documents Archive.
- **Other Local Research:** There are a number of individual and ongoing efforts that have been instituted, which are geared towards local research. Related to this strength, is the multitude of private social research organizations in the region (e.g. Oregon Research Institute and the Oregon Social Learning Center)

Weakensses

- **Lack of knowledge about data collection and management of data:** Agencies do not where data is stored or who they should speak with to get that data.
- **Time and financial constraints:** A lot of money and time are required when data needs to be collected. These temporal and financial gaps are difficult to fill, especially in times of financial hardship.
- **Interagency partnership**: A lack of communication and collaboration between agencies concerning data collection and use creates inefficiencies. Also agencies are unaware of what data has already been collected and each agency has different methods in which the information was gathered.
- **Limitations of Existing Data Framework(s)**. The region lacks general conformance (and consensus) with open standards like those supported by Open Geospatial Consortium (OGC). Data maintenance is occurring at high levels for some critical data sets but not for many others.
- **Lack of availability of Social Equity and Environmental Justice data**: Survey respondents, workshops and meeting participants consistently and definitively identified Social Equity and Environmental Justice as a data category where data gaps currently exist. Though not as resounding, other data categories with identified gaps include Economic, Public Health, Climate Change and Energy and Human Capital data (Figures 9 through 12).

Opportunities

- **Availability of data:** There is a large amount of data out there, and various new technologies allow data to be more easily collected or obtained.
- **The Lane Livability Consortium** will continue in some capacity. In any case, it will provide a mechanism for perpetuating the momentum of the work initiated by the original project.
- **Regional Data Clearinghouse**: The survey, as well as all meetings and workshops, suggest unanimous support for the opportunity to pursue more coordination on region-wide data management efforts. More specifically, interest has been expressed broadly for a centralized "clearinghouse" that could provide the region with a "one-stop data hub." Some alternatives are outlined in Section 4.2.

Opportunities (Continued)

- **Existing Data Sharing Frameworks:** The frameworks that exist (including those outlined under Section 4.2) are an undeniable strength that present significant strength "matching" opportunities.
- **The potential of appropriate use of Open Source technologies**: There are promising examples in the nation (and world) of regions utilizing Open Source technologies for the organization and sharing of data. Open Source technologies provide access via free license to a product's design or blueprint, and promote universal redistribution of subsequent improvements to it. More specific open source alternatives and ideas are presented and evaluated in Section 4.2.
- **Public Health Reform:** Changes in the public health sector have meant an increase in the amount of data collection related to public health.
- **Increased Sharing of Plans and Other Regional Documents.** The University of Oregon Library's Local and Regional Documents Archive (LRDA) https://scholarsbank.uoregon.edu/xmlui/handle/1794/7549 provides a valuable central repository of significant documents produced by local governments in all of Oregon.

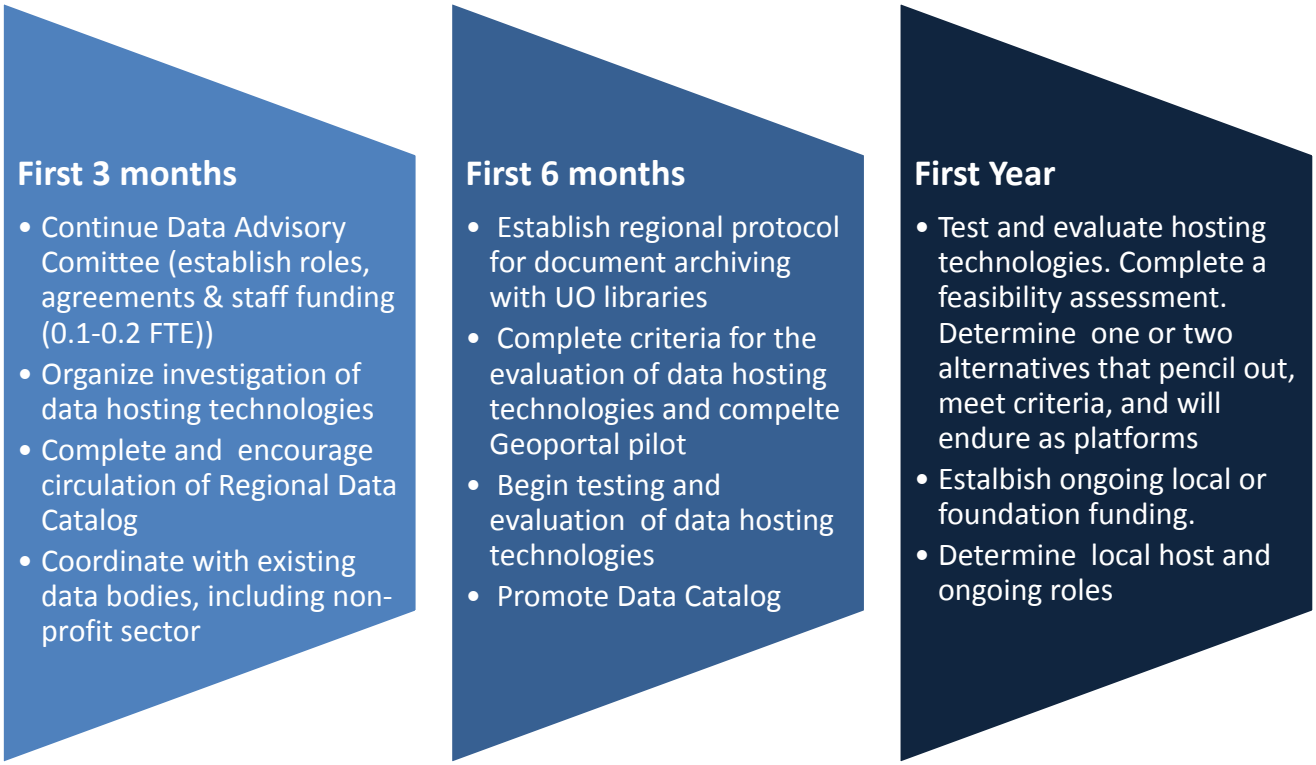
Threats

- **Staffing limitations:** Most staff today are overworked and, historically, there have been limited opportunities for data partnerships with other agencies.
- **Determining community needs:** Understanding data needs poses a challenge because of the need for community surveys and other tools to assess public opinion.
- **Cost of data:** Collecting, managing and updating data is extremely expensive.
- **Transparency:** There is a need to provide sources for data, information on how the data was collected and the how the data was interpreted. Due to the possibility of manipulating data and skepticism, increased transparency will ensure accuracy.
- **Can desire and momentum for change survive the complexity of "transition."** Until individuals and organizations successfully transition from an old way to a new way, the change won't happen.
- **Data strength and weakness perception paradox.** There is a noteworthy strength/weakness perception paradox that exists related to data within the region. Some groups highlight the quality and access strengths of the data they manage, and though this may be entirely true, it should not de-emphasize the relative access and quality weakness of other datasets. An understanding of the funding flows that create and maintain data go a long way towards explaining data currency, quality, availability, how well it is cataloged, publicized, and shared, now and in the future.
- An emerging trend at the Regional GIS Partnership level is movement away from centralized GIS data stores.

1.3 Key Recommendations and Next Steps

The final recommendations and the next steps which have been identified by the Regional Advisory Committee are very closely related. Section 5.0 is organized as a list of recommendations organized temporally (to be addressed within the first three months, first six months, or first year) including associated next steps (beginning in April 1, 2014). There is also a category of general (potentially ongoing) recommendations. Figure E-5 is a brief summary of the critical path outlined in the *Key Recommendations and Next Steps* section (pg. 52).

FigureE-5: Outline of the "Critical Path" for implementing Key Recommendations and Next Steps



1.0 Introduction

1.1. The Lane Livability Consortium

The Lane Livability Consortium was established in 2010 in order to apply for and receive a Sustainable Communities Regional Planning Grant from the U.S. Department of Housing and Urban Development. The Consortium's efforts are funded through the Regional Planning Grant and with leveraged resources contributed by local partner agencies. Work through the Consortium commenced in 2011. Partner agencies include City of Eugene, City of Springfield, Lane County, Eugene Water & Electric Board, Housing and Community Services Agency of Lane County, Lane Council of Governments, Central Lane Metropolitan Planning Organization, Lane Transit District, Oregon Department of Transportation, St. Vincent de Paul Society of Lane County, University of Oregon Sustainable Cities Initiative, and the University of Oregon Community Planning Workshop.

The primary focus of the Consortium is to identify opportunities for greater impacts and linkages among our region's core plans and investments related to land use, transportation, housing, and economic development. Other Consortium initiatives include work on public engagement, scenario planning, use of data for decision-making, regional investments, organizational capacity building, and catalytic projects. This report summarizes the efforts made by the Lane Livability Consortium to address one of its expressed initiatives; to better understand and improve data for decision-making in the region.

1.2 Improving Data in the Region

The defined geographic scope of the Lane Livability Consortium is the area within the urban growth boundaries of Eugene, Springfield, and Coburg, and a small area of Lane County adjacent to these urban areas. The area has over twenty distinct local agencies and numerous other organizations that, at varying levels, use and maintain data in carrying out their agency/organizational missions. This means there is an enormous amount of data being collected, used and stored in the region. A number of efforts have been made, or are continually underway to make sense of this data and to try to improve efficiencies in data maintenance and sharing. Some of these have been pioneering in nature, including the Regional Land Information Database.

Even with these in place, there are significant opportunities for improving the role of data in decision-making within the region. The funding and collective momentum of the Lane Livability Consortium work has enabled a truly unique opportunity for evaluation and investigation of these opportunities. Although significant work remains to be done, the efforts of the Lane Livability Consortium, and more specifically the efforts of the Regional Data Advisory Committee (and other contributing bodies), have moved the effort forward significantly, and provided a roadmap for future efforts.

1.3 Background

Among the earliest efforts of the Lane Livability Consortium, were five synthesis workshops facilitated by the University of Oregon's Community Planning Workshop. The workshops addressed specific topics which were identified by the Consortium as priorities. These workshops were intended to build on the findings from an assessment of local plans "Core Area Team" meetings which had been held in 2011.

On Monday, July 30, 2012, a synthesis workshop was hosted at the Eugene Public Library to discuss issues surrounding data. This included issues about accessing data, gathering and sorting data with limited financial and human resources, identifying opportunities to increase data sharing in the region, and considering how to organize and understand increased amounts of data.

Twenty-eight individuals representing fourteen agencies and organizations within the Eugene-Springfield area attended the workshop. The meeting was led by Stephanie Jennings from the Lane Livability Consortium and Michael Howard, Ian Foster, Paul Leitman and Steve Rafuse from the Community Planning Workshop. The participants represented a cross section of public agencies and nonprofit organizations with interests in planning, transportation, housing, economic development, and health issues. A list of attendees is included with the workshop memorandum, which is included as Appendix A.

For each workshop, CPW utilized a peer learning approach including a panel of people charged with "starting the conversation" followed by discussions in small groups. Agency staff were encouraged to disperse themselves to ensure that small groups included multiple agency perspectives. Over twenty participants attended the workshop. The following major themes arose during this workshop:

- **Sharing and leveraging community data results in better plans, initiatives and outcomes**. Data plays an important role in the development of plans, the day-to-day operation of agencies and organizations, and measurement of progress and outcomes.
- **Agencies and their staffs desire data that go beyond their own core area expertise.** However, agency staffs have limited resources to gather and analyze the necessary data to "tell the story" and make a rational justification for policy recommendations that support state, federal and philanthropic funding resources. There is a great lack of connection between data and data analyses.
- **A need exists to create a more comprehensive system for regional data sharing (beyond the current LCOG databases).** There is interest in a system where staff can share and access data as well as perform analyses of data. Participants expressed a varying degree of ways this could be done, including a data clearinghouse and using regional organizations to be the "keeper" of data. An adequate framework structure for organizing, sharing, updating or displaying data does not currently exist.
- **Increased sharing of community health data and statistics can lead to strategic investment decisions and inform plans in other core areas.**
- **Consistency and efficiency is lacking.** The existing method of performing data analysis lacks consistency and efficiency. Sometimes similar analysis is needed within

different organizations. Coordinating the review, and utilizing the same baseline analysis, would increase efficiency.

- **Staff tend to specialize.** Most agency staff know about their own discipline, but know less about how other disciplines organize their work. This focus and specialization means most people are unaware of how other agencies and planning fields operate and where there are synergies, data, or other resources they could utilize for their own work.

A clear set of four recommendations emerged from the synthesis of the workshop. They are as follows:

1. Conduct a baseline assessment of data with an inventory and assessment of needs. A survey should be developed in order to assess what data agencies (governmental and non-governmental) are collecting. This should include an analysis of how they are using data, and what additional data they desire.
2. Encourage the sharing of data and data analyses. A system should be developed to allow for data to be shared between agencies, between core areas, and between various departments within individual agencies.
3. Create regional data sharing working groups. Working groups should meet periodically to address the needs for regional data sharing, interpretation, analysis and access. Some workgroups currently exist around the data analyzers; however, it is also necessary for the data consumers to coordinate. In addition, cross-communication is needed between the various working groups.
4. Establish a set of resources to help regional data sharing and interpretation. An established resource list is needed to assist agencies with accessing, organizing and understanding what data is available and what data is needed.

The key themes and recommendations from the Data Synthesis Workshop, conducted in July of 2012, formed the foundation for the development of the work scope for the development of a "Data Plan" (Consortium Task 1.8). Additional insights were gathered from a concurrent effort conducted by the City of Eugene (with help from CPW) to investigate opportunities for improved data coordination.[1] The Regional Data baseline Assessment and Next Steps Report outlines and summarizes the Regional Data Advisory Committee response to these insights and recommendations.

1.4 The Lane Livability Consortium's Regional Data Baseline Assessment and Next Steps Report

Lane Council of Governments was charged with leading what became Lane Livability Consortium Task 1.8 *Data Plan*. Due to timeline and budget constraints, the "Data Plan" task was scoped by Consortium and Lane Council of Governments (LCOG) staff to be a baseline assessment of existing data conditions, with a feasibility study element addressing future data sharing. The purpose of the task was framed as "to assess existing data

[1] *Innovative Mapping & Data Synthesis Projects Memorandum*, Community Planning Workshop, August, 2011 https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/12206/Eugene%20Data%20Collection%20Final.pdf?sequence=1

collection and uses, determine whether any critical gaps exist, and develop recommended next steps to address them." The primary tasks in the work plan included the following:

Task 1: Develop and distribute a regional data survey
Task 2: Form an Advisory Committee to oversee and contribute to "Data Plan" efforts
Task 3: Develop a Regional Data Framework and Inventory
Task 4: Develop Recommendations & Next Steps

These tasks were seen as directly addressing the recommendations identified in the data synthesis workshop, while balancing constraints and expectations. The deliverable is referred to as the *Regional Data Baseline Assessment and Next Steps Report.*

1.5 Regional Data Advisory Committee

The first step in this process was the formation of a Regional Data Advisory Committee. Members were recruited primarily through recommendations by the Lane Livability Consortium Project Management Team. One goal in developing the committee was to ensure that its members included not only data managers, but also a healthy balance of data end-users and data generators (including representatives from the non-profit sector). With few exceptions, all recommended committee members agreed to actively participate. The committee was assembled in late summer of 2013 and had their first committee meeting on September 27, 2013. The committee is made up of 17 members representing 13 regional organizations.

The Advisory Committee provided review and feedback on all products developed for this task. Involvement by the committee was realized on a number of levels, from attendance at committee meetings to extensive support in the development of draft and final materials. Committee participation was invaluable to the project, and it is fair to say that this report is the committee's report.

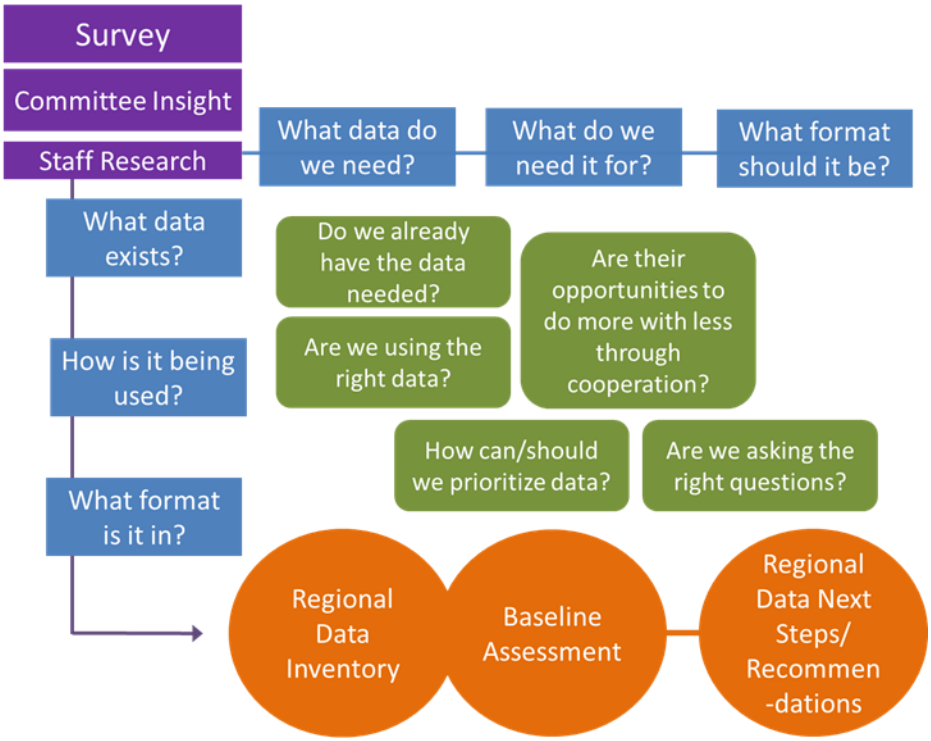
2.0 Baseline Assessment of Regional Data

A baseline assessment of data within the region is a core deliverable of Lane Livability Consortium Task 1.8 *Data Plan*. It is a crucial step for improving overall understanding of data in the region. It is the starting place to answering the questions: what data do we have, and who has it? It also establishes a valuable foundation for evaluating what data are missing, and what can be done better. Ultimately the assessment supports our decisions about possible solutions. The Baseline Assessment of data organizes and evaluates insights about data gleaned through the efforts of the Regional Data Advisory Committee, including a region wide survey, results from workshops and meetings, and research conducted by staff and committee members.

2.1 A Regional Data Survey

The first task for the Regional Data Baseline Assessment was to develop and distribute a regional data survey. The aim of the survey was to form the foundation for an assessment of data needs and to help characterize, at a high level, the "state of data" within the region. Figure 1 provides an overview of how the survey fit into the overall objectives of the Regional Data Assessment task:

Figure 1: Regional Data Baseline Assessment and Next Steps Report Methodology



Survey data representing the broad picture at a high level, along with Advisory Committee insights and Staff research outlines the answers to basic questions. Analysis of responses and follow up reveal other relevant questions (and answers). All of this is assembled into the three

major components that constitute this report: A Baseline Assessment (which includes a Regional Data Inventory (Catalog) and a set of recommendations and next steps.

2.1.1 Survey Design and Distribution

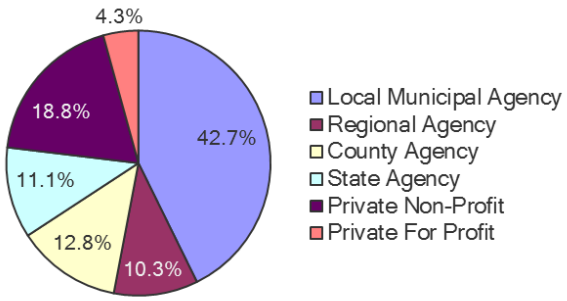
The Survey was designed using Survey Monkey®, a free web survey service. Survey Monkey® enables online distribution and completion of surveys through web links sent to e-mails or posted on websites. The Regional Data Advisory Committee encouraged LCOG to ensure that the survey would take no longer than 10 minutes to complete. Numerous iterations were developed with the assistance of the Advisory Committee and individual Advisory Committee members. In the end, the survey consisted of 18 questions (primarily multiple choice). The survey, in its entirety, is attached as Appendix C.

The survey was distributed via e-mail through Advisory Committee members, Lane Livability Consortium Project Management and Leadership Teams and LCOG staff. These individuals shared the survey link within their respective organizations and professional networks. No additional promotion of the survey was conducted. The survey response period was October 21, 2013 through November 6, 2013 (a total of 17 days).

2.1.2 Survey Response and Results

Within that 17-day period a total of 130 individuals completed the survey. No survey "universe" (the number of potential respondents) was established, so a response rate cannot be calculated. However the Advisory Committee and staff were thrilled with the number of responses received. As Figure 2 indicates, responses represented a broad range of organizations at rates generally proportional to local staff numbers within each category.

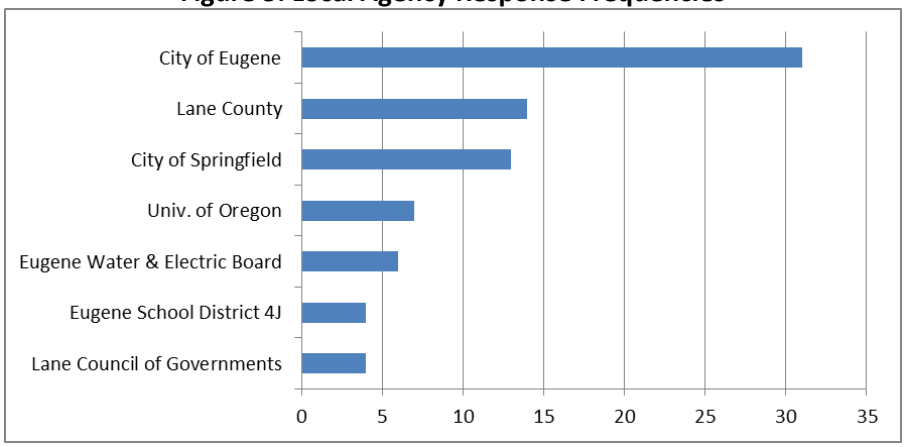
Figure 2: Survey Response by Organization Type



Overall, over 30 organizations were included. Among these at least 15 were government agencies, at least were 6 non-profit agencies and even some for-profit organizations were included. Also of note is the fact that over 40 areas of professional expertise were represented in the survey results. It is important to note that respondents were directed, at the beginning of the survey, to answer the questions for themselves or their work group (as opposed to answering for their department or agency as a whole.)

Figure 2 indicates that nearly 43% of respondents worked for "Local Municipal Agencies." This percentage was not surprising since the majority of the Advisory Committee and Consortium Teams are associated with these agencies. Figure 3 provides a breakdown of the most commonly identified local agencies within that 43%.

Figure 3: Local Agency Response Frequencies



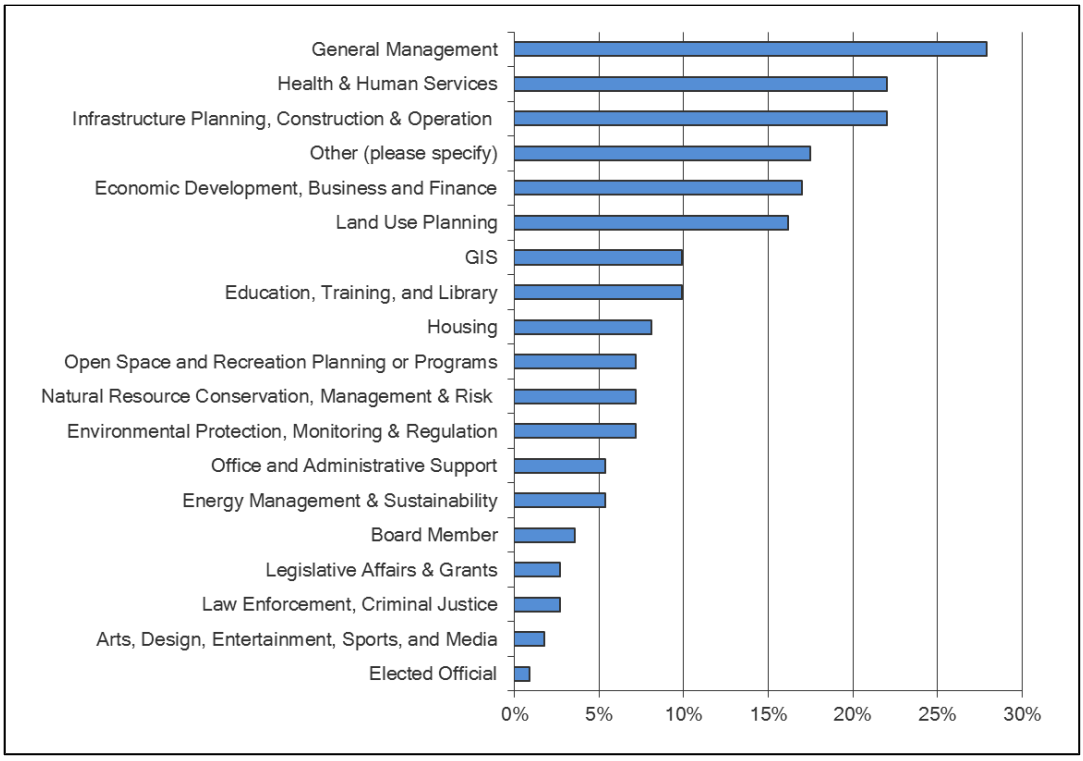
City of Eugene had the most identified responses with over 30, followed by Lane County and the City of Springfield. Other organizations that were identified within the survey include:

- United Way of Lane County
- Central Lane 911
- Centro Latino Americano
- Sheltercare
- Lane Developmental Disabilities Services
- Metropolitan Wastewater Mgmt. Commission
- City of Coburg
- LCC Small Business Dev. Center

Survey Respondent Profile

One of the initial questions on the survey asked the respondents to characterize the work they did for their agency (from a list of options). Figure 4 represents a breakdown of respondents.

Figure 4: Respondent Frequencies by Nature of Work

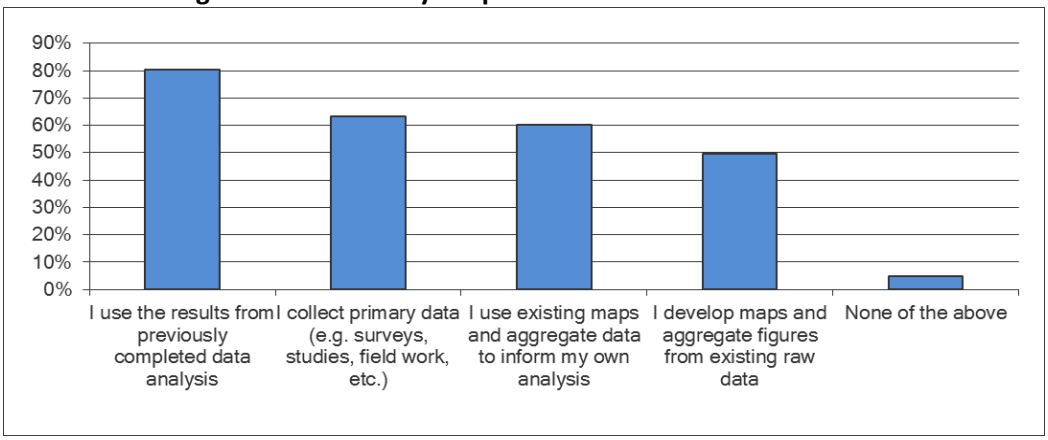


"General Management" led the group, followed by Health and Human Services and Infrastructure Planning, Construction and Operation (which includes transportation and public utilities staff).

Survey Respondent Method(s) of Data Access

When asked how they gather or access data, respondents noted with highest frequency that they "use the results from previously completed surveys" (80%). A significant number of respondents (62%), however, indicated that they collect their own primary data as well. Responses from this question suggested that there is a broad range of ways that staff access and gather data. Figure 5 provides a summary of the results of this question.

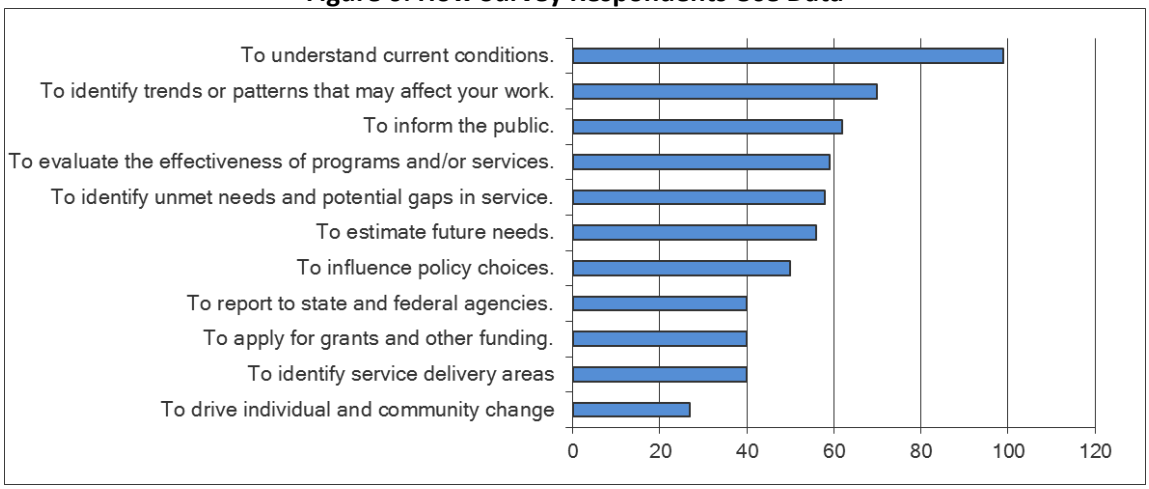
Figure 5: How Survey Respondents Gather or Access Data



Survey Respondent Use of Data

When asked how they use data, the most frequent response among respondents was "to understand current conditions" followed by "to identify trends or patterns that may affect (my) work" and to "inform the public." Figure 6 represents the responses to this question and reveals a broad range of data applications within the region.

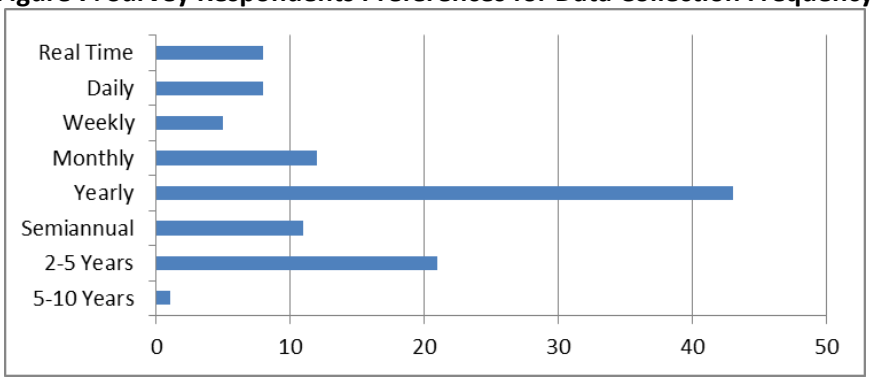
Figure 6: How Survey Respondents Use Data



Survey Respondent Preferred Frequency for Data Collection

When asked how frequently the most important data respondents use needs to be gathered to be most relevant to their work, respondents overwhelmingly preferred data collection at an "annual" frequency, followed by "2-5 years" and "monthly." There was no clear temporal pattern revealed in the preference for data frequency. Figure 7 effectively reveals this lack of pattern by presenting the survey responses in order of collection frequency (from most to least frequent). The annual time frame is preferred in both the private and public sector. One logical explanation for this is annual budget timeframes and other standard annual reporting cycles. The prevalence of the 2-5 year time period is possibly explained by its matching the range of timeframes used by the US Census American Community Survey (ACS).

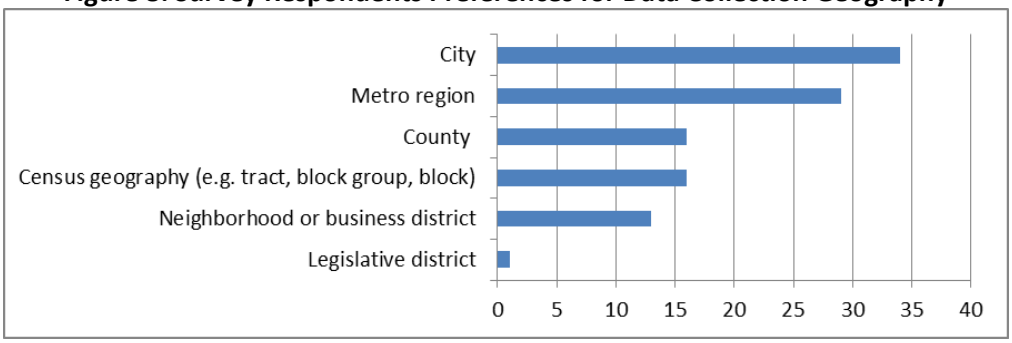
Figure 7: Survey Respondents Preferences for Data Collection Frequency



Survey Respondent Preferred Geography for Collection of Data

Another important factor in characterizing data in the region is a general sense for the geography that data is being collected at. Respondents were therefore asked to identify the geographic scale of the data that they both use and view as most important to their work. Figure 8 shows the responses. City level data was cited most frequently, which is not surprising given the number of city staff that responded to the survey. Metro region level data was next and county level and Census level data were the next most frequently identified geographies. Perhaps not surprisingly, when asked the geographic scale for data they wish they had better access to, respondents provided a nearly identical distribution of responses.

Figure 8: Survey Respondents Preferences for Data Collection Geography



Survey Respondent Highest Needs for Data

What data do you have?

Respondents were asked to characterize data which they have, and data which they wish they had in a number of different ways. Figures 9 and 10 summarize the responses to the question: "Which data category best describes the data you have access to and which is of HIGH importance to your work?" followed by the same question for data with MEDIUM importance to their work. Figures 11 and 12 show the same for "HIGH" and "MEDIUM" importance data which respondents wish they had better access to.

Figure 9: Data Respondents HAVE which is of HIGH Importance to their work

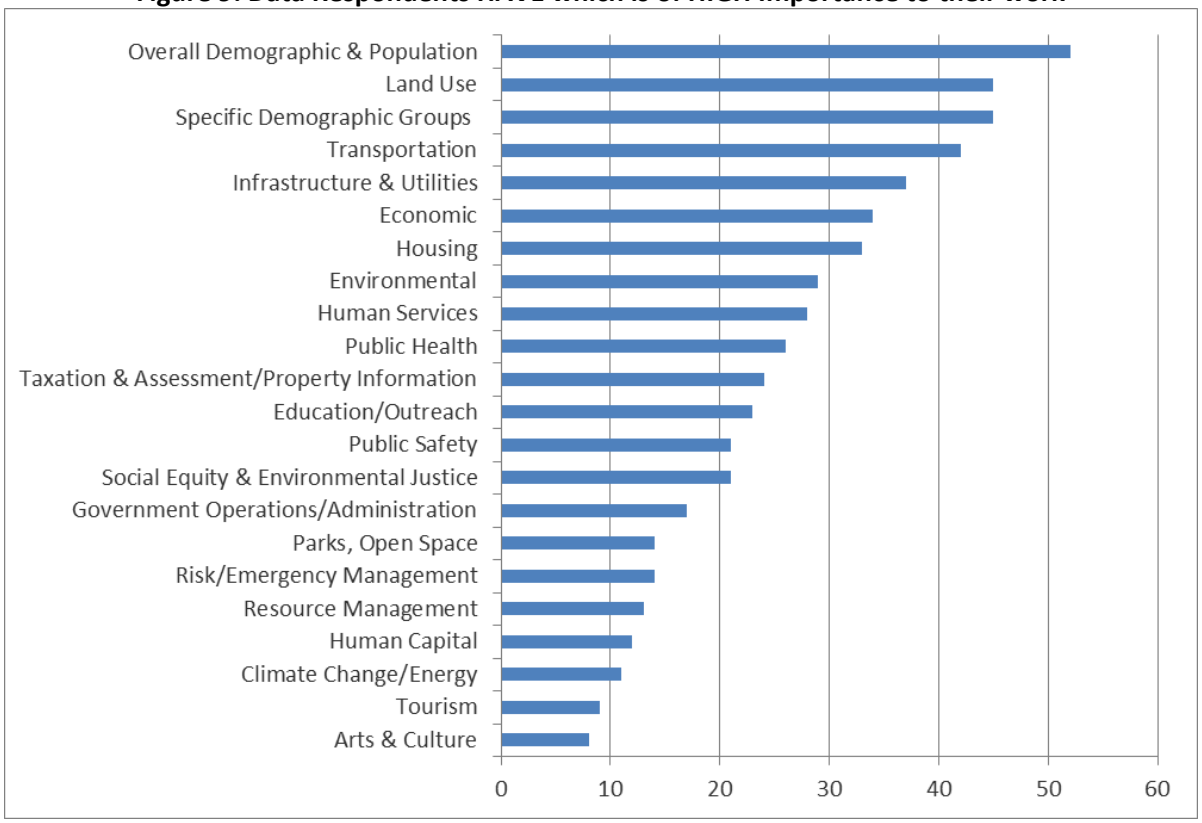


Figure 10: Data Respondents HAVE which is of MEDIUM Importance to their work

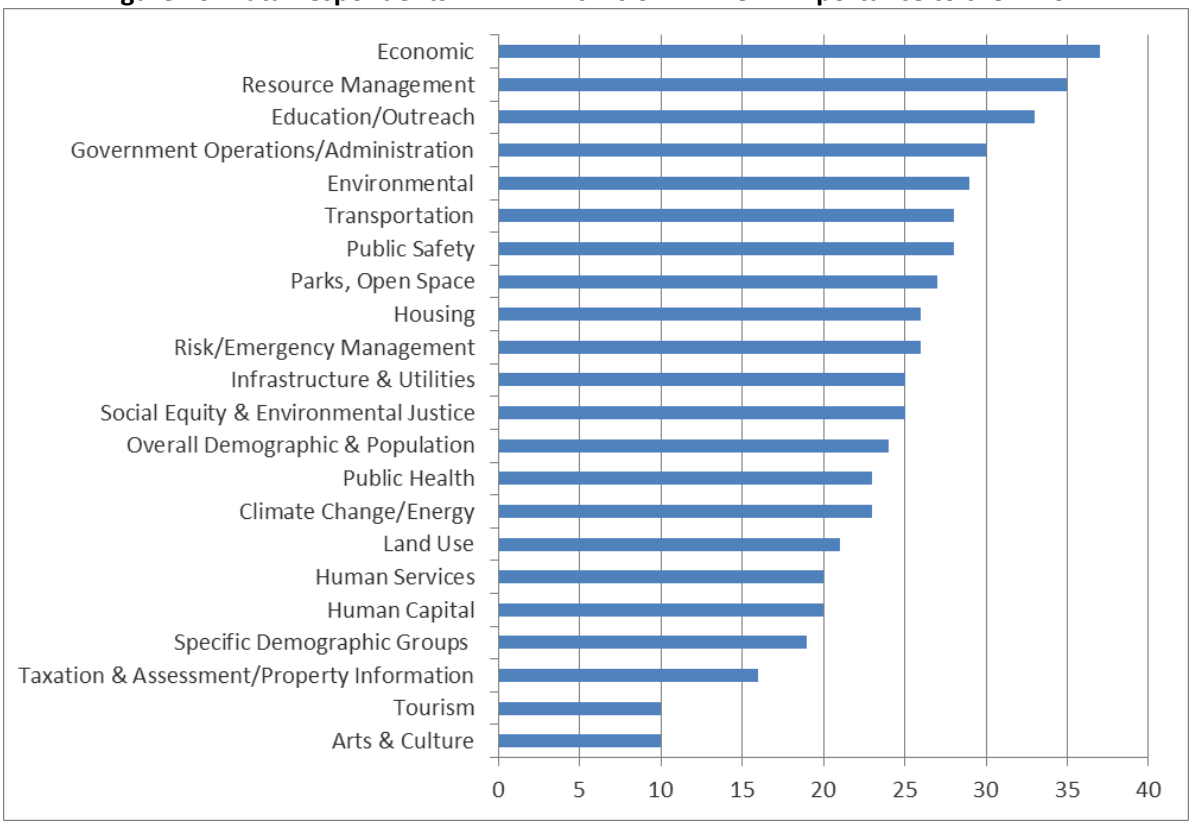


Figure 11: Data Respondents WISH they had improved access to, which is of HIGH Importance to their work

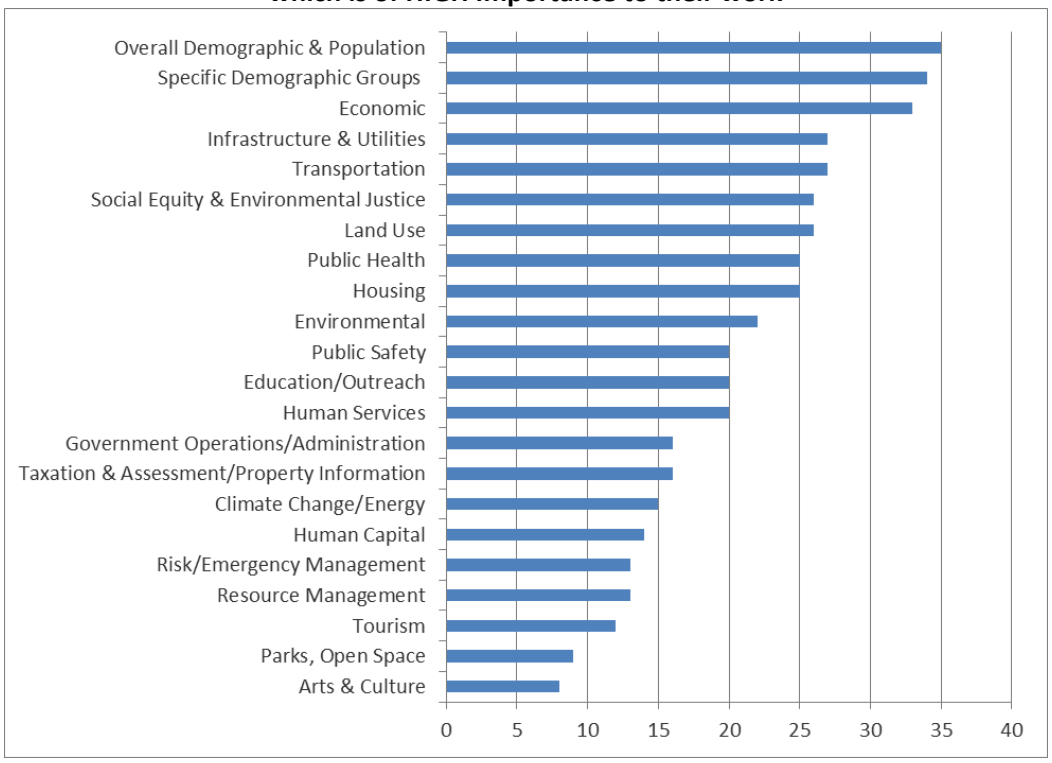
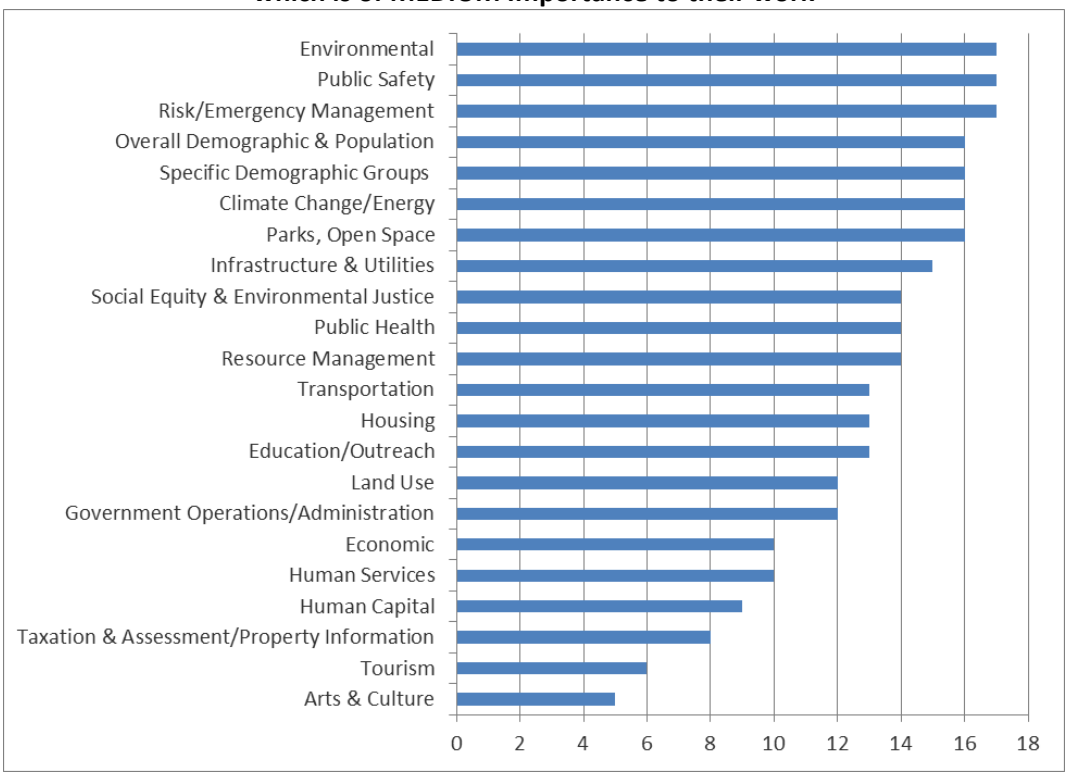


Figure 12: Data Respondents WISH they had improved access to, which is of MEDIUM Importance to their work



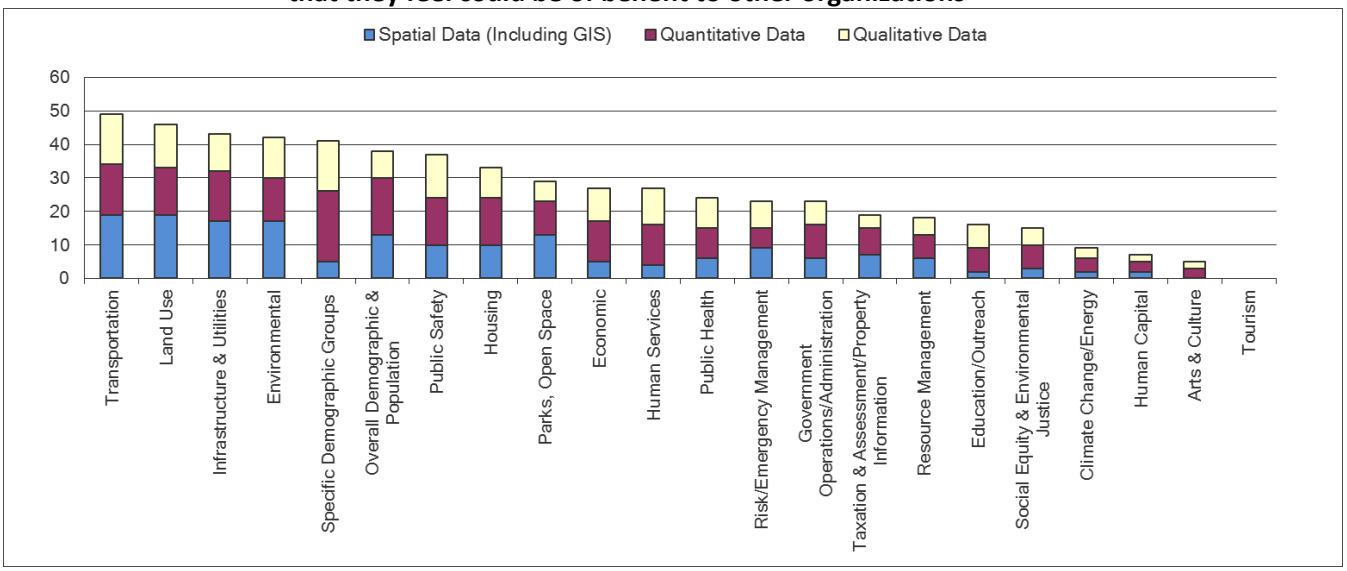
Responses in identifying important data that respondents had, and important data that they wish they had were fairly consistent. For example, Demographic data (overall and specific) both ranked high on the "already have" and "need improved access" lists. In contrast, however, some categories like Land Use data, although appearing in the top ten of both lists, are found lower on the "need improved access" list. This is confirmed by the fact that Land Use ranks very low on the "need improved access and of MEDIUM importance" list. Other data categories with a similar dynamic include Human Services, Taxation and Assessment/Property and Parks and Open Space data. This may suggest that also these are important data sets, they might not be the most important to prioritize for access improvement.

Some data categories, such as Social Equity and Environmental Justice have a higher ranking in the "needs improved access" list than they do in the "already have" list, suggesting that these data represent a noteworthy gap within the region. Other data categories with this same dynamic include Economic, Public Health, Climate Change and Energy and Human Capital data.

Survey Respondent Data Management

Finally, respondents were asked to identify the data that their organization owns or has access to that they (the respondents) felt could benefit the work of others in the region. Respondents were asked to identify the data as being in either a spatial (GIS), qualitative or quantitative data format. The results are presented in Figure 13.

Figure 13: Data that survey respondents organizations own or have access to, that they feel could be of benefit to other organizations



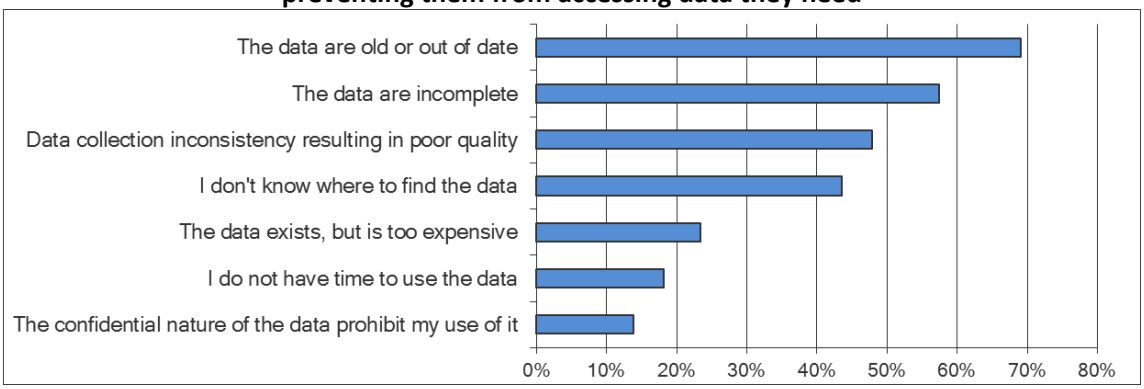
According to the results presented in Figure 13, Land Use, Transportation, Infrastructure & Utilities and Environmental data are among the most widely available in the region. Also noteworthy is the fact that although data in these areas are available in all three formats, they are most frequently cited as being available in a spatial (GIS) format. Not surprisingly, the most widely available quantitative data cited is Demographic and Population data, which is most commonly accessed through the US Census. Transportation, Specific Demographics, Public Safety and Land Use were the most frequently identified categories for the availability of Qualitative data. Lowest on the list, overall, were data related to Climate Change and Energy,

Human Capital, Arts and Culture and Tourism. Though these findings should be evaluated, this conclusion does not necessarily qualify these data areas as having "data gaps." This dynamic could very well be a function of there simply being less interest in/need for these data generally. For example, some of these categories were noted as being less important in Figures 9-12.

Survey Respondent Data Access Limitations

Survey respondents were asked to identify the primary limitations that prevent them from accessing the data they need most. Figure 14 provides a summary of the responses they gave (they were asked to identify all that apply).

Figure 14: Survey respondent's primary limitations preventing them from accessing data they need



The most common limitations noted by respondents is the age and outdated nature of data, the incompleteness of data as well as poor data quality resulting from inconsistent collection methods. Also reported at a relatively high frequency was respondent's unawareness of where to find data. Since respondents did not have to identify any issues, each of the issues noted above is significant. Respondents were also given the opportunity to identify issues not listed or to provide further detail on the issue they face related to data access. Regarding the issue of the immediacy of data, one respondent noted that,

"The emergent nature of public safety depends on the most current and accurate data…"

Representative comments related to data immediacy and quality includes the following:

"Data are not regularly collected on all modes of transportation, particularly walking and biking, nor are the basic infrastructure data complete or updated with any regularity"

"The definitions of the parameters are so ill defined the data is not practical or useful for comparisons or practical application."

"Poor or no metadata - Cannot access via regional network (silo of data behind agency firewall)."

Several respondent comments also captured well the general frustration surrounding data accessibility:

"It isn't that it is 'too expensive' but it has a cost associated with the acquisition and analysis which requires work planning and prioritization. Whenever I need data to conduct analysis, we can get it or a proxy, but need to spend time/money to develop the project."

"It is difficult to relate different data sources to each other for comprehensive understanding."

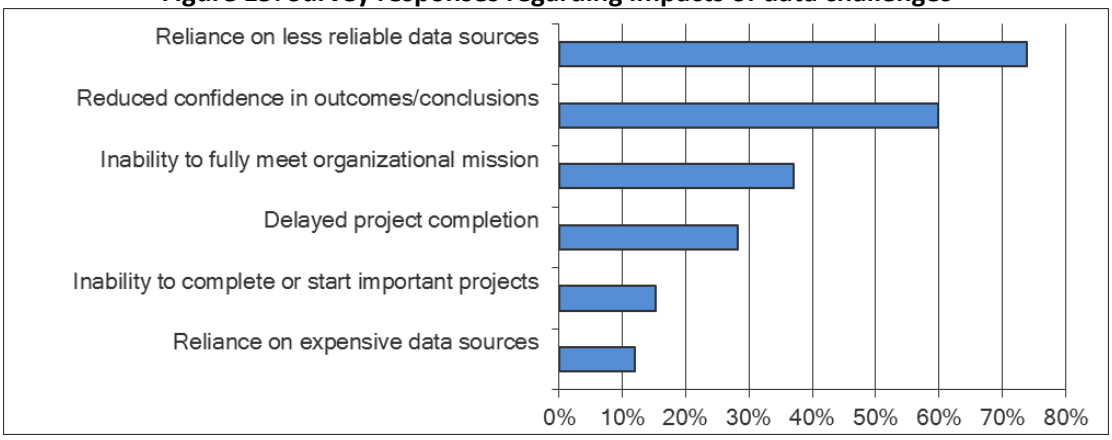
"We are most interested in linking data systems between agencies and providers.

"There is no centralized source for commercial property data that isn't associated with a specific Realtor and it may not include rural locations."

"Unaware of the breadth of data that exists in other sectors (housing, economic development, land use, transportation, equity). I imagine that there is a lot of data available for these sectors that would be relevant to my work, but information is not easily accessible."

As a follow-up to the question related to data access challenges, respondents were asked to characterize the impacts that data access limitations have on their work. Figure 15 shows that the most frequently identified impacts are reliance on less reliable sources, reduced confidence in the outcomes and conclusions and an inability to fully meet their organizations mission.

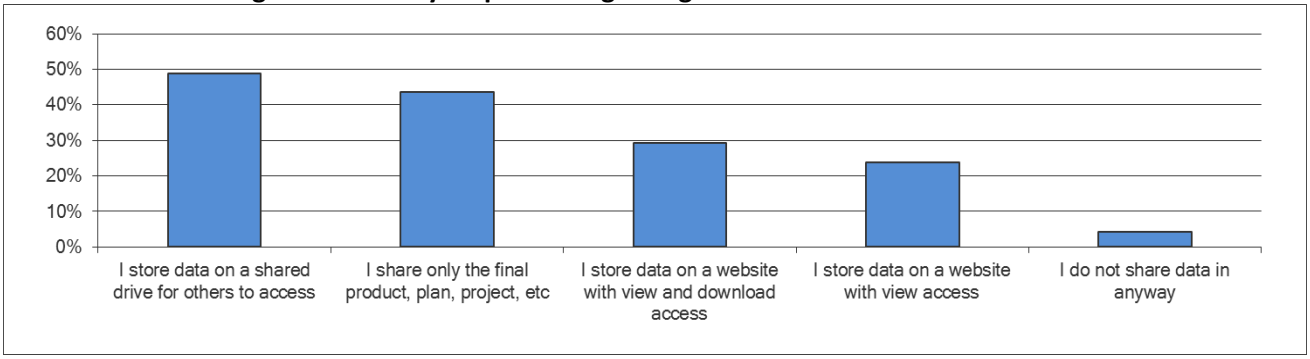
Figure 15: Survey responses regarding impacts of data challenges



Respondents were also provided an opportunity to narratively describe other impacts or to clarify their impact characterization. One common comments among these was staff's inability to effectively meet the expectations of their superior and the public in "telling a meaningful story" with the data.

Figure 16 shows the frequencies that respondents answered the question of how they store their own data. The majority of respondents indicated that they either do not share or share at a limited (inter-departmental or interagency) level.

Figure 16: Survey responses regarding how individuals store data



What did the survey tell us about data in the region?

The survey responses presented above speak largely for themselves, but a number of general conclusions can be drawn from the survey results.

- One of the aims of the data survey was to thematically characterize regional data availability, LCOG staff assembled a summary of the frequency which data themes were identified by agencies. This is a very high level "inventory" of data in the region. The summary, in its entirety, is included as Appendix D. One dynamic that clearly emerges from this high level inventory is that the majority of data in the region is found within four agencies, City of Eugene, Lane County, City of Springfield and Lane Council of Governments. Even if weighted to account for the high prevalence of respondents from these agencies, the breadth and depth of data at these agencies stands out among the rest. It should be noted that the City's inventories of data are generally limited to their respective boundaries, whereas Lane County and LCOG have data at a more regional scale.
- Although most survey respondents rely upon data that has already been collected, many also collect their own data and provide value added synthesis and analysis to existing raw data.
- The survey provides a clear indication of the ubiquitous reliance local agencies have on data within the region. They use it to understand current conditions, anticipate trends and inform the public and decision makers. The survey also shows a prevalent desire to improve data access and quality to achieve these goals.
- Demographic, Economic and Social Equity & Environmental Justice data stand out as data which are viewed by respondents as both important and in need of improvement
- Survey responses, in general, appear to be supportive of the idea of a centralized "information commons," that could improve data access, understanding and quality.
- Although the preference for data geography and collection frequency varies, the most frequently identified in the survey are annual data and at the city level.

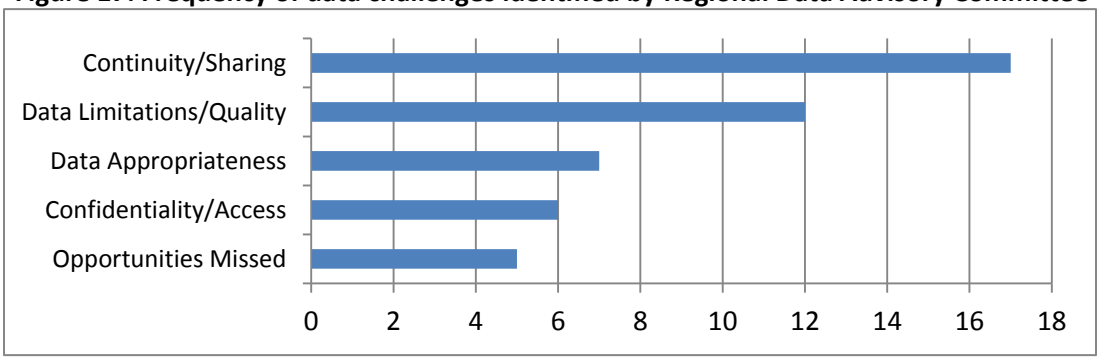
2.2 Regional Data Advisory Committee Comments Summary

Another key component informing the baseline assessment of data in the region is the informed perspectives and other expert contributions of the Regional Data Advisory Committee. Advisory Committee contributions were obtained primarily through the committee's formal meetings, but additional insights were obtained through a combination of group and individual communications with LCOG staff.

The first meeting of the Advisory Committee included a formal group discussion about several questions that were eventually posed in the regional data survey. Committee members were asked to characterize the data challenges or needs they have and to provide early suggestions for addressing their data challenges and needs. Figure 17 provides a summary of the nature of comments made by committee members responding to their data needs and challenges.

The committee's comments closely match those provided by survey respondents (Figure 14). Most frequently noted among the committee are the challenges related to data sharing and data continuity. Committee members noted a challenging lack of resources for sharing data, as well as the threat that poor data continuity poses to the sharing of data. Data limitations, appropriateness and quality were also noted in high frequency.

Figure 17: Frequency of data challenges identified by Regional Data Advisory Committee



Some specific, but representative, comments made by Advisory committee members regarding the data needs include the following:

"It can be very difficult to share data because of confidentiality provisions"

"We are not reaching communities of concern"

"We don't need more data we need to sort existing data for relevance"

"Efforts surrounding sharing data need to be more focused."

"It is hard to translate (present) what data is available (locally and otherwise)"

"Geography is challenging- State & county level is often too great a scale (finer detail needed)

"Data is not setup well to share. Need infrastructure to make data more accessible"

"Complexity in data sharing is hard to translate into Actions"

"We need better interoperability and conformance with open standards like those supported by Open Geospatial Consortium (OGC)

***"We are missing opportunities by not tapping Open Source options and other creative solutions which may* be the answer for how data sharing can happen more efficiently."**

"Data maintenance is a critical factor, very hard to keep things up to date"

"There are limited staff resources to dedicate to these efforts"

Some specific, but representative, comments made by Advisory committee members regarding the potential for of data sharing include the following:

"Knowing the data other agencies have would be very helpful so we can be consistent in use of the data/assumptions."

"Using common methodologies would be useful, creating a central, indexed repository would be useful."

"There is a high need to identify key community-wide data and research questions and to build an elegant data collection system that responds to those few key questions.

"It would be great to have access to quantitative and spatial public datasets more broadly, easily access and economically available (free). Sharing, warehousing and maintaining would enable greater collective impact initiatives. Linkages are more possible and likely when data is in a more shared/common space."

"We should expand our discussions beyond data (what we have been doing for 20 years) to the planning and design of regional analysis and decision support tools (or portal) that maximizes the benefit of regionally managed data sources in consort with local agency data"

"There is much dense data out there, we need "dashboards" – like the speedometer and gas gage in your car. These allow you to know how far you can go - you decide where."

"Establish agreements with each jurisdiction to ensure that you keep the most current versions of their documents in the warehouse. Maintenance needs to be done by the individual jurisdictions."

"I think continuing work in this area would be one excellent way to keep the LLC work ongoing after the funding ends"

"The data is available, but it can upset those who do not want to hear it. They may not want the data if it does not support their agenda. Why share any data when decision makers do not listen to the facts?"

Survey comments and committee feedback or woven into all of the remaining sections of this report.

2.3 Regional Data Catalog

Task 3 in the preparation of the Regional Data Baseline Assessment and Next Steps Report was the development of a data framework and inventory. An inventory of data is a critical piece of a baseline assessment of data in the region. In addition to providing an overview of the data that

is held and maintained within the region, it also becomes a central tool in the evaluation of (or ability to evaluate) what data gaps exist.

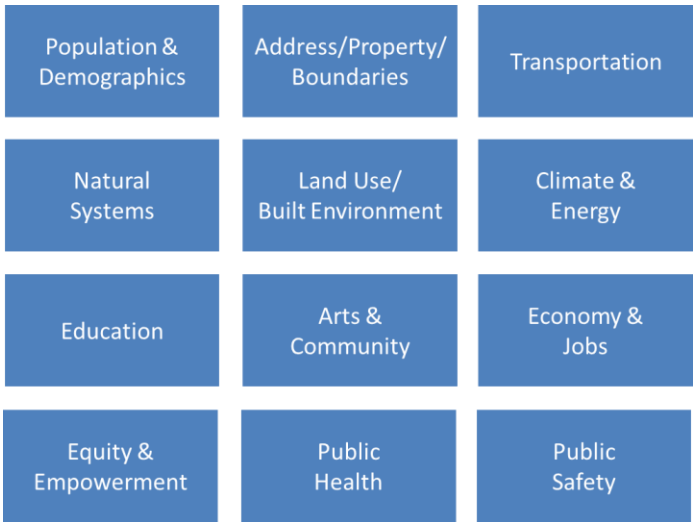
Significant time at the Advisory Committee level was dedicated to the development of a framework for an inventory of data. Early inventory framework concepts included detailed approaches that would include extensive spreadsheets containing comprehensive listings of specific datasets (including metadata describing datasets origins and collection methods). Ultimately, time and resource constraints necessitated a more basic preliminary framework approach. The approach ultimately pursued was viewed by the Advisory Committee as a reasonable balance between the constraints of the project and the necessity to develop a better understanding for data availability at both an agency/organizational and thematic level.

The fundamental concept was to provide a resource for improved access to, and understanding of, data in the region. Following is an introduction to and discussion of the contents of the Lane Regional Data Catalog (Appendix B).

2.3.1 Key Data Categories

Using a data framework established by Sustainability Tools for Assessing & Rating Communities (STARS)[2] as a starting place, LCOG staff developed twelve key data categories for the Regional Data Catalog framework. The categories were reviewed by the advisory committee and minor changes were made. The categories, although attempting to be as comprehensive as possible, do not cover every possible component of "data" within the region. They do cover areas determined by the advisory committee to be "key" categories related to sustainability. The categories are presented in Figure 18.

Figure 18: Data Inventory Framework Containing Key Data Categories (adjusted from STARS framework)



The Regional Data Catalog is organized by data categories. A summary was developed for each category. The summary was framed as a sort of "state of the data category" resource that

[2] http://www.starcommunities.org/about

would include a narrative description of the category including an orienting introduction to the category and answers to the following characterizing questions:

- What are the key uses/applications of this data?
- Who/what are the key organizations associated with this data?
- Who are the key holders of this data in the region?
- What are common, or key, data sets in this category?
- What are the committees, or boards that influence this data?
- What are the common formats the data is found in?
- What geographic scope is the data typically found at?

The task of tracking down the answers to these questions was and is not a simple one. That task was led by LCOG and Lane County staff but ultimately fell to the Advisory Committee as a whole. Each data category summary sheet was started by an individual committee member, typically one with unique expertise in the category. The results were then shared among committee members and beyond and additions and feedback were incorporated into the final drafts. Though the data category summary sheets may not all be fully comprehensive currently, they represent information gathered by numerous data users and managers representing numerous professional disciplines and organizations. Also of note is the fact the elements of the Regional Data Catalog are intended to be iterative with ongoing update and refinements. They will ideally serve as a useful and ongoing place for assembling any missing or new content.

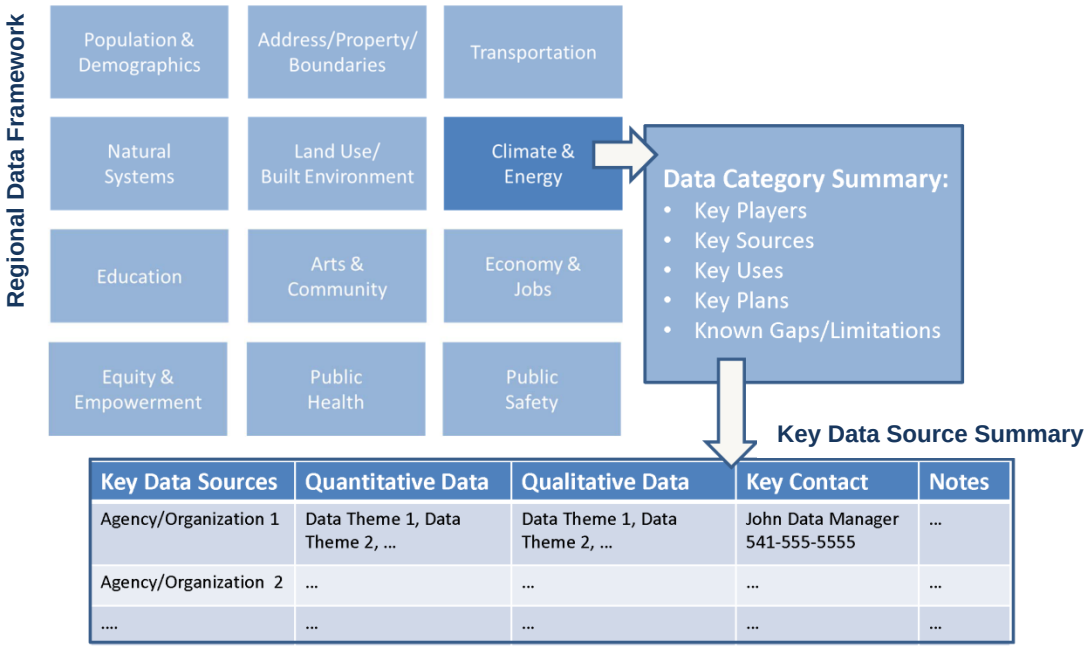
2.3.2 Key Data Sources

The second element of the Regional Data Catalog, and serving as a companion resource with the Data Category Summary sheets, is the Key Data Sources Summary sheets. While the Data Category Summary sheets provide a thematic summary of data, the Key Data Sources Summary Sheets provide an organizational (sources) based summary of data. It outlines, at a summary level, which organizations have which data. They include the following information:

- The Key Data Source (Agency/Organization)
- Quantitative Datasets available through Agency/Organization (at a thematic level)
- Qualitative Datasets available through Agency/Organization (at a thematic level)
- Key Contact(s)
- Notes

The Key Data Sources Summary sheet is intended to be the primary resource that connects those seeking data to those who have it (or may be able to direct them further). Development of the Key Data Sources Summary sheets followed the same methodology as the Data Category Summary sheets, and just as the Data Category Summaries, they are intended to be updated and iterative. Figure 19 provides an overview of the Inventory Framework represented by the Regional Data Catalog.

Figure 19: Overview of Regional Data Catalog Inventory Framework



2.4 Existing Data Sharing Framework(s)

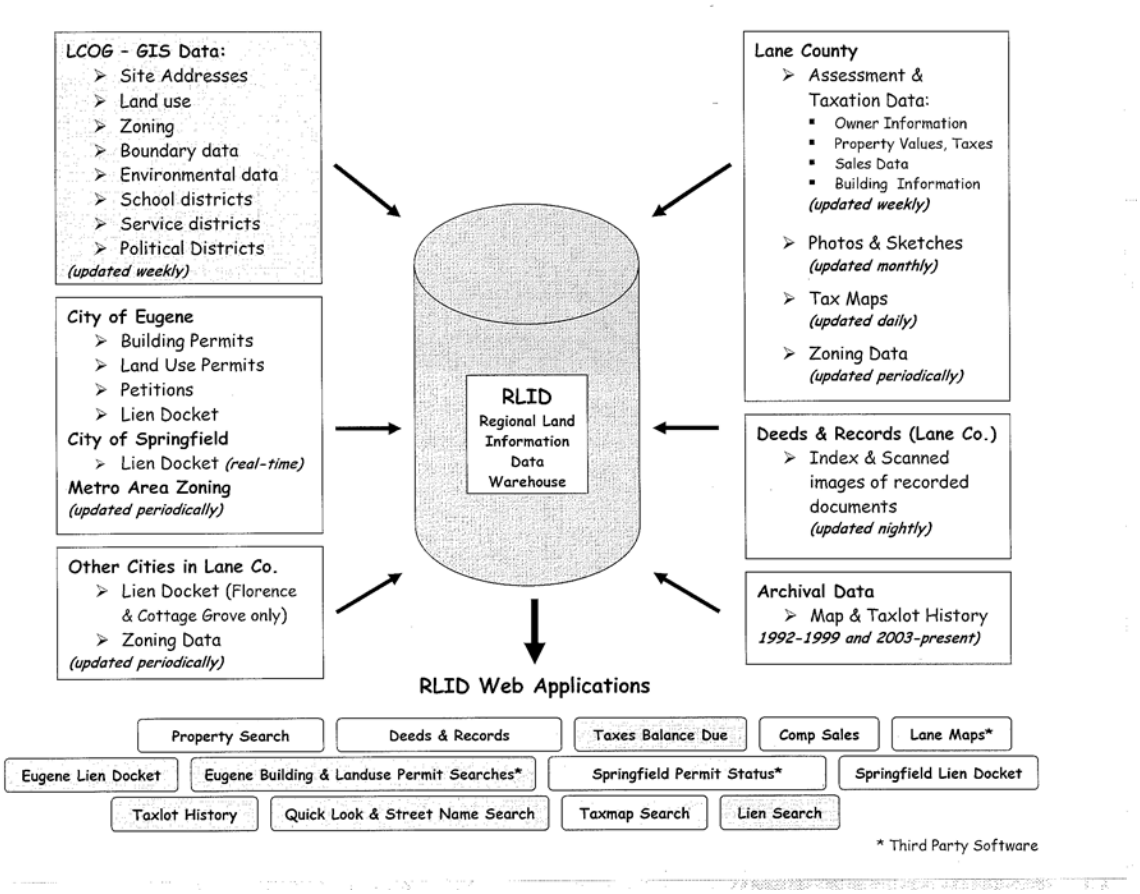
A baseline assessment of data in the region should include an overview of data sharing frameworks that are currently in existence. An understanding for these is critical for charactierizing current strengths and weakness, and also for mapping opportunities.

2.4.1 Existing GIS (Spatial) Data Sharing Frameworks

Undoubtedly the most established and perhaps best existing example of high level data coordination within the region is the ***Regional GIS Partnership***. It is a partnership of Lane County, the cities of Eugene and Springfield, the Eugene Water & Electric Board (EWEB), Lane Council of Governments (LCOG) and LCOG's other member agencies. The partnership is unique within the State of Oregon and noteworthy on a broader national scale for its long history of successes in the regional development and sharing of geographic information that is fundamental to the workings of local government. The Regional Land Information Database (RLID) is the product of more than 35 years of collaboration among local government agencies in Lane County. Often misunderstood simply as a web-based set of useful tools for querying, analyzing, mapping and reporting information within Lane County, the Regional Land Information Database is, at its core, a central regional data warehouse. Figure 20 provides an overview of how the Regional Land Information Database is utilized for web applications, such as rlid.org's property search utilities, which draw upon the central data warehouse.

Figure 21 provides an overview of RLID's Project Organization Concept, a comprehensive assortment of teams, agencies, groups and committees. Regional GIS data is maintained on a regular basis through cost-sharing mechanisms.

Figure 20: Web Application's using the Regional Land Information Database



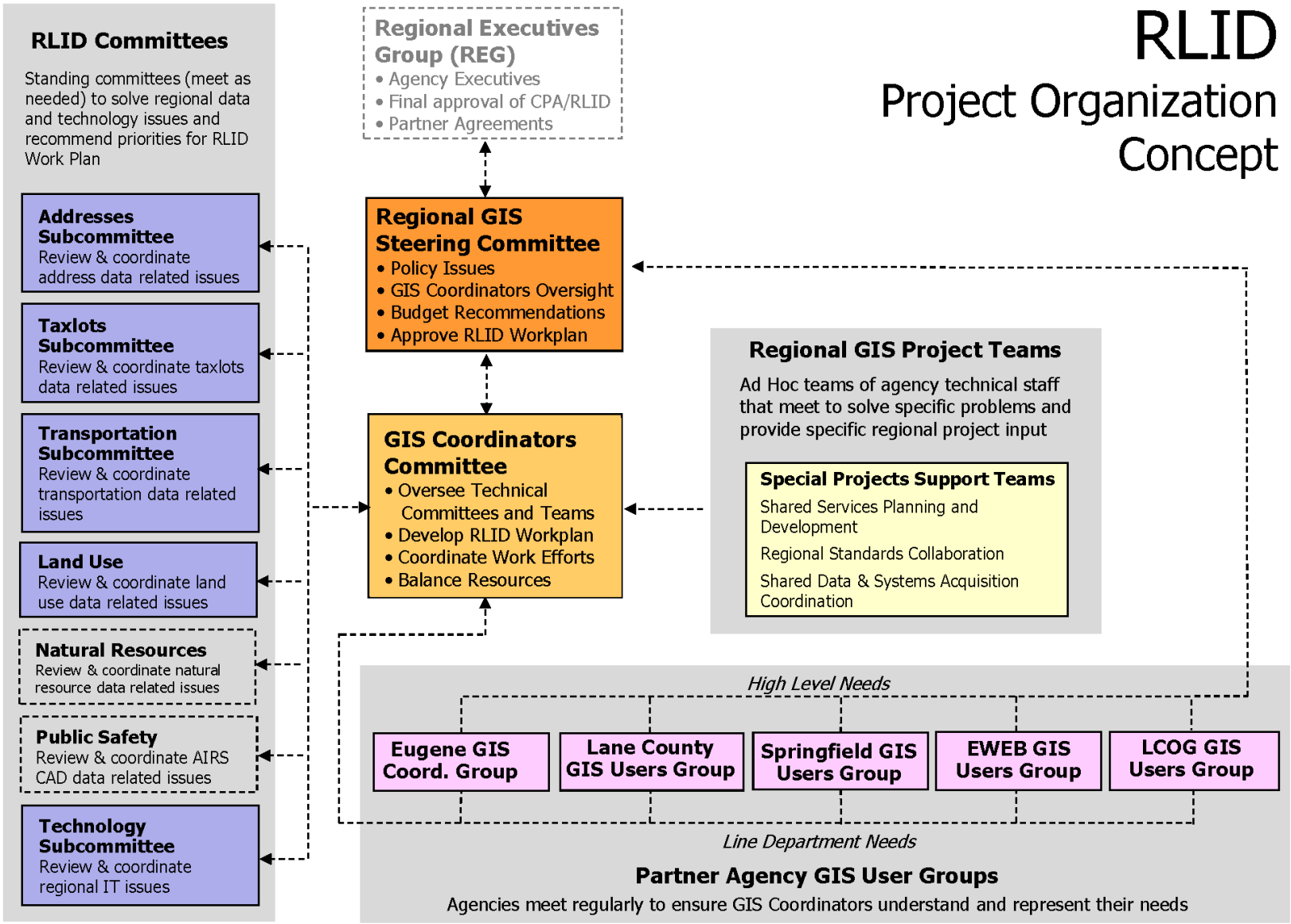
A Cooperative Project Agreement (CPA) is the mechanism that regional GIS partners have used to regularly maintain and update key GIS layers. Under this model, regional data is treated as an ongoing organizational asset and not as a "one time" product. Continued success in this regard is possible through partnerships that promote collaboration and sharing among the region's government agencies as well as the support of RLID users, some of whom pay a subscription for use of special applications. Their needs contribute to the system's development and future innovation.

Regional GIS data holdings cover a wide variety of disciplines and subjects which allows creative and interesting cross-comparisons of data. Point address data and road address-range data allow for external data sets with an address component to be "geo-referenced" to regional data, insuring improved consistency.

The regional GIS partnership, as depicted in Figure 21, creates an existing means of gaining access to data and understanding what data is available. The partnership allows for creating/maintaining data that is compatible and offers an opportunity for peer review of data to help make data more accurate. This is particularly important for spatial data and has expanded the use, and trust, of GIS data to a wider variety of disciplines.

The Regional GIS Steering Committee is undertaking a strategic planning process and there is expected to be some fine tuning that will emerge from that process. The information and recommendations contained in this report will undoubtedly inform that process.

Figure 21: Overview of the Regional Land Information Database



Other notable examples in the region of spatially-based data sharing include the following mapping applications:

- MapSpring (Springfield) is the City of Springfield's mapping application providing the community commonly requested information about public facilities, properties, land records, and a variety of other features. The application is built entirely with open source software (OS), hosted by a small local business and support with streaming 'web services' rather than copied files. http://www.springfield-or.gov/dpw/MAPS.htm
- GeoDart (Eugene) is the City of Eugene mapping application providing all necessary staff access to applicable spatial data.
- LaneCountyMaps provides a user interface to view and query digital map layers pertaining to transportation, land, parcel, political boundaries, natural features, and aerial photography.
- Commissioner Search is a Lane County GIS Web application that enables users to find elected officials and political boundaries by a geographic area. Users can enter their address and a report is returned listing the information.
- Zone and Plan Maps is a Lane County GIS Web application that provides a user interface to view and query map layers pertaining to zoning, land use and planning.
- SIDO is a Lane County GIS Web application providing a full featured map for reviewing and researching survey information. The Surveyor's Images and Documents Online (SIDO) also provides links to other survey-related documents.
- RLID Mapping applications: RLID.org has two interactive mapping tools:
    - RLID Maps has replaced Lane Maps as RLID's full mapping application. It requires a subscription for access. http://rlidmaps.rlid.org/
    - Easy Map includes the basic features of the new RLID Maps and does not require a subscription. Easy Map can be accessed either from the Detailed Property Report (standard or advanced) or by clicking the icon in the "View" column from the RLID property search results page.

  RLID.org also has a series of Quick Look applications for identifying things like fire protection zones, elected officials and school district and school zones.

2.4.2 Other Existing Data Sharing Frameworks

The Lane Livability Consortium

A list of data sharing frameworks would surely be incomplete without including the Lane Livability Consortium, which has been the impetuous for numerous information sharing opportunities, including this report. Other key data sharing elements of the Lane Livability Consortium include an Equity and Opportunity Assessment which assembles census and other state, federal and local social and demographic data into maps and analysis for local relevance. These can be found within the Consortium's Livability Toolkit (see below).

As a supplement to the Lane Livability Consortium website www.livabilitylane.org, the Livability Toolkit makes the key research, data, findings and other accomplishments of the Lane Livability Consortium available to everyone in a user friendly and accessible format. The toolkit also includes resources that are not necessarily products of the HUD grant, but are viewed as having

vital significance and applicability to Toolkit themes. The site is intended to be maintained and updated as an ongoing information commons.

The toolkit consists of nine thematic "modules" which each contain content specific to the sustainability theme. One module which is designed in to the Toolkit is the "Regional Data" module. It is a place holder for the products generated by this task, but could also serve as a gateway to ongoing regional data resources. The site is anticipated to be a widely used resource and there is current momentum to establish funding for ongoing maintenance of the site.

Figure 22: The Nine Thematic Modules of the Lane Livability Toolkit

Public Health Data Coordination Efforts

Coordinated Care Organizations (CCOs) emerged with the passage of the Federal Affordable Care Act of 2010. Trillium Community Health Plan has been certified by the State of Oregon as the CCO for Lane County. The CCO is charged with bringing all types of healthcare providers together to refine the current health delivery system as well as working to fill medical program and service gaps. The state is tracking 17 CCO incentive metrics and 16 additional state performance metrics that will help track progress towards Oregon's goal of better health, better care and lower costs. The recently completed Lane County Community Health Improvement Plan calls for increased coordination among five key players in the public health realm in Lane County: PeaceHealth, Trillium Community Health Plans, United Way of Lane County and Lane County Public Health. A Metrics and Evaluation Committee has been organized and includes within its charter the responsibility to "Find efficiencies in data collection efforts." A Community Health Assessment and Improvement Plan are in place (2012) and will be conducted every three years.

United Way of Lane County Community Indicators Report 2012

The information in the 2012 Lane County Community Indicators Report presents a picture of Lane County in four important and foundational areas: Education, Income, Health, and Basic Needs. Each section contains tables and charts which reflect past and existing conditions in

these critical areas. Some of these measures are combined into indicator groups which show the inter-relationship between different elements and their combined influence on individuals, families, and the community. United Way plans to develop Community Indicator reports every three years, in conjunction with the Community Health Assessment and Improvement Plans.

Central Lane Metropolitan Planning Organization

Metropolitan planning organizations (MPOs) are federally mandated and federally funded transportation policy-making organizations made up of representatives from local government and governmental transportation authorities. Lane Council of Governments (LCOG) is the Metropolitan Planning Organization (MPO) for the central Lane County area that includes the Eugene-Springfield metropolitan area and Coburg. The MPO works cooperatively with local governments and transit providers to set priorities for transportation needs. Transportation planning is a data rich undertaking, and data coordination between partners is central to MPO operation and success. Of note is the fact that the Central Lane MPO's governing bodies are investigating strategic adjustments related to data.

Central Lane MPO/LCOG has a current work program for FY14 and FY15 which includes tasks to establish on-line databases and dashboards of performance measures for the region. The intent of the work is to begin to track the performance of travel options programs, transit service, use of road, bike and walk modes, and to show progress towards goals supported by expenditures of public funds. In addition, supporting data such as population, employment, land use, corridor density, housing type and location, air emissions, etc. are to be included to provide context as well as trends in quantities that are intrinsically related to transportation.

This work will entail development of a data collection and display framework. For the sake of efficiency and cost-effectiveness, the ability to automatically update the data bases will be pursued, though at the start the intent is to begin 'small' by developing enough of the framework and data set(s) to prove that the product(s) as conceived will be useful to local agency and MPO staff, and to the public and other interested parties. Results will be shown on maps, charts, and other graphics that will be available through a web site.

Connected Lane County

Connected Lane County is a partnership between Lane County, United Way of Lane County, Lane Community College, the University of Oregon and the school districts within Lane County. The partnership aims to increase the number of local high school graduates who are successful in higher education and life by creating a seamless and streamlined transition between early childhood, K-12 and higher education. Partners share information, increase cooperation, and aid students in their education transitions by identifying shared strengths, issues and concerns; identifying and addressing systemic barriers that harm equity and accessibility for all students; and exploring opportunities for cooperation.

Local Libraries

The University of Oregon, Lane Community College, Eugene and Springfield Libraries offer unique access to government information, newspapers & microfilm, photos, maps, images,

specialized collections, and state, national and global research databases. Librarians also provide a valuable resource for navigating and sorting data.

Regional Trends

Regional Trends is a statistical profile of Lane County which has historically been produced by the Lane Council of Governments. The report summarizes some of the most frequently requested data sets compiled by LCOG on the subjects of population, demographic trends, employment, air quality, education, and public health. This information is intended to assist staff and public officials in report writing, research, presentations, grant applications, and planning projects. The most recent regional trends report was completed in 2008. LCOG is considering an update with a revised approach and design.

Eugene Counts

Eugene Counts provides a framework for engaging community members from across the city in framing the concrete results they would most like to see the City of Eugene focus on. Strategies aimed at capturing the diversity perspectives include broadening data access and transparency. The effort is also generating valuable survey data.

City of Eugene ICMA Performance Measures Reporting

The City of Eugene has a well-developed performance measurement system, collecting data across thirty-eight services, and using it to inform management decisions and report on the City's performance. Eugene benchmarks its performance against 229 communities through the International City/County Management Association's (ICMA) Center for Performance Measurement. The City's performance measurement work has been highlighted in national publications and conferences, and other communities frequently seek advice from Eugene about how to improve their own efforts.

Local and Regional Documents Archive (LRDA)

One standout example of an existing qualitative data sharing effort is the University of Oregon Library's central digital repository of local and regional documents, the Local and Regional Documents Archive (LRDA) https://scholarsbank.uoregon.edu/xmlui/handle/1794/7549. LRDA provides a central repository of significant documents produced by local governments in all of Oregon. The archive includes comprehensive plans and development codes, as well as specialized plans, studies, reports dealing with a very broad variety of topics. The LRDA has tremendous potential to be more broadly and actively utilized as the widely utilized and recognized repository for current and historic documents. No comparable resource currently exists.

Other State and Federal Frameworks

Of note is the fact that numerous state and federal resources are widely and frequently utilized by staff in the region. Though not comprehensively outlined in this report, these resources include the following:

- Oregon Spatial Data Library, DEQ Databases,
- Data.gov - A directory of raw tabular and geographic data produced by Federal agencies

- Oregon Geospatial Enterprise Office (GEO) - Framework Implementation Team (FIT) – teams of state participants working to assemble themes of spatial information statewide. Examples include: Cadastral FIT, Elevation FIT, Transportation FIT, etc.
- Oregon Explorer,
- American Fact Finder (US Census) Longitudinal Employer Household Dynamics (US Census)
- New York Times: Mapping the 2010 U.S. Census and Mapping America – Interactive maps to explore U.S. Census Bureau's 2005-2009 American Community Survey, and change between the 2000 and 2010 Census.
- Piton Foundation 2010 Census Data Mapper
- Numerous other US Census resources available at www.census.gov
- U.S. Department of Housing and Urban Development GIS Portal - Access a variety of housing and policy related data.
- New York Federal Reserve Bank Credit Conditions Map – Map credit card and mortgage lending delinquency data nationwide.
- Opportunity Index - View selected data about economy, education, and community vitality for counties and states nationwide.
- PolicyMap - A mapping and data website presenting a variety of demographic, housing, education, and economic information for local policy and planning.
- WalkScore – Measure the walkability of any address in the U.S.
- Federal Geographic Data Committee - NSDI Framework - means to assemble themes of spatial information nationwide.

2.5 Data Types

There is a tremendous variety of data within the region and it is important to address important distinctions between data types. Spatial data, often referred to as GIS data, is information which has an explicit geographic location. This data can be mapped. This is a data format that is growing in popularity and application.

Tabular data is contained in spreadsheets and data bases, and although it may have "spatial" elements (e.g. City or State) it does not yet have any expressed spatial reference. Qualitative data exists in the form of ideas or comments. Survey responses are a good example. They are not easily quantified. Related, but different are reports, studies and plans. These contain context and storytelling which is important data which cannot be easily "quantified." Each data type plays a vital role in planning and decision making within the region.

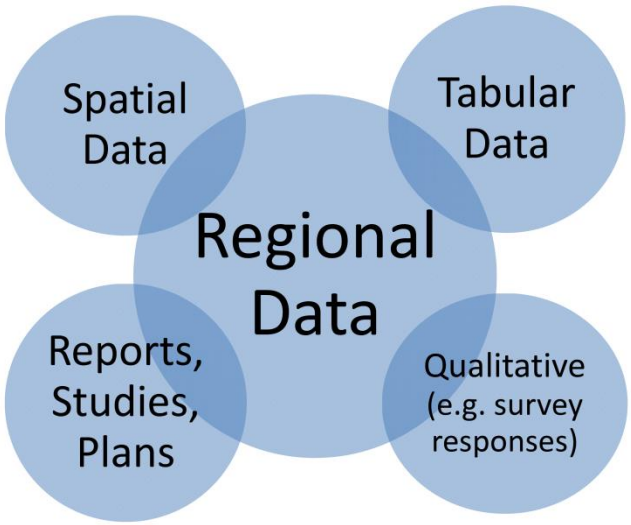


Figure 23: Overview of Data Types

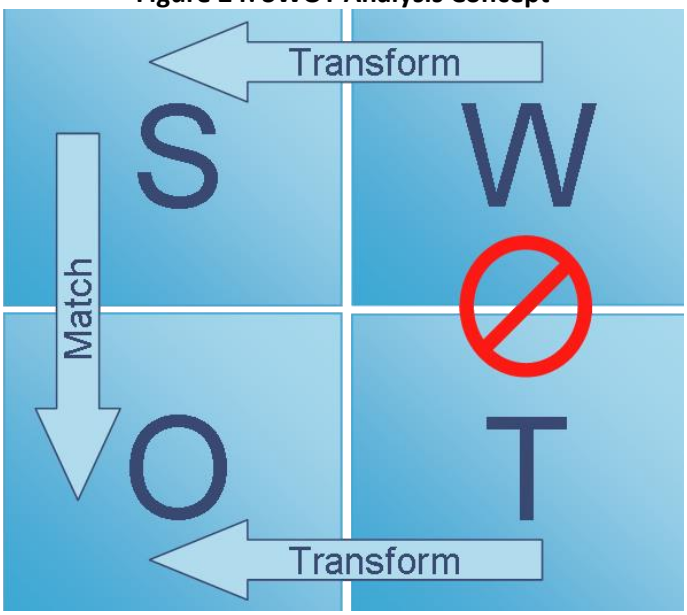
3.0 S.W.O.T. Analysis of Data in the Region

A S.W.O.T. analysis is a useful technique that has its origins in the business world, but is equally useful in numerous other applications. An understanding of strengths and weaknesses, and the identification of both opportunities and threats is important in determining (and prioritizing) a way forward. It will help set the stage for strategic planning (next steps and recommendations).

An evaluation of the strengths, weaknesses, opportunities and threats of data in the region draws upon feedback from the Advisory Committee, survey results, workshops summaries and staff research, but is not as comprehensive as the baseline assessment in its entirety.

As conveyed in Figure 22, Weaknesses and Threats should be addressed through efforts to transform them into Strengths and Opportunities, while Strengths should be addressed in a manner that matches opportunities.

Figure 24: SWOT Analysis Concept



3.1 Strengths

There are a number of clear strengths with regard to data in the region currently. Several key strengths are outlined below. With strengths identified, and as noted in Figure 22, efforts should be made to match up regional strengths with regional opportunities, which are also summarized in this section (3.0).

Strengths

- **The regional GIS partnership** is the most sophisticated example of data sharing in the region. It is a valuable existing example of effective data sharing. The Regional Land Information Database (RLID) creates a means of gaining access to data and understanding what data is available. The partnership fosters the practice of creating/maintaining data that is in a consistent format. The partnership offers an opportunity for peer review of data to help make data more accurate. The Cooperative Project Agreement (CPA) is an example of how regional GIS partners have identified an intergovernmental funding mechanism and management structure. Within this approach, regional data is treated as an organizational asset and not as a "one time" product. Regional data reside centrally on regional servers owned jointly by the partner agencies streamlining costs, minimizing proliferation of unmaintained data copies and spreading costs among agencies that share and use the data.
- **The work of the Lane Livability Consortium**, including funding through HUD (reports, etc.) has created a surge of research, data and momentum, including this very task and report. The Consortium has provided unparalleled opportunities for regional staff to convene, to collaborate and to share. This is a unique and significant strength.
- **Institutions of Higher Learning**. The University of Oregon and Lane Community College are at the heart of the region and Oregon State University is not far. These intuitions of research and learning create unparalleled opportunities for data creation, analysis and access. Local governments have maintained a close relationship with these communities, but opportunities exist for additional connections, including with the University of Oregon Library's Local and Regional Documents Archive.
- **Other Local Research:** There are a number of individual and ongoing efforts that have been instituted, which are geared towards local research Community Indicators report, Community Health Needs Assessment, Connected Lane County, and the activities of individual agency departments and divisions. This information, though always in need of strengthening, is a current strength within the region. Related to this strength, is the multitude of private social research organizations in the region (e.g. Oregon Research Institute and the Oregon Social Learning Center)

3.2 Weaknesses

Feedback from local staff through the survey and through the Regional Data Advisory Committee reveals a number of weaknesses with respect to data in the region. Several key weaknesses are outlined below. With weaknesses identified, and as noted in Figure 22, efforts should be made to transform regional weaknesses into strengths.

Weaknesses

- **Lack of knowledge about data collection and management of data:** Agencies know what information they want, but they do not where the data is stored or who they should speak with to get that data.
- **Time and financial constraints:** A lot of money and time are required when data needs to be collected. These temporal and financial gaps are difficult to fill, especially in times of financial hardship. In such times there is concern among staff that important elements of an agency's mission is overlooked, e.g. understanding and reaching communities of concern, or adequately sorting existing data for relevance in "telling the story."
- **Interagency partnership:** A lack of communication and collaboration between agencies concerning data collection and use creates inefficiencies. Also agencies are unaware of what data has already been collected and each agency has different methods in which the information was gathered. Although numerous efforts come and go, they can lack focus and comprehensive relevance. One specific manifestation of the issue includes the difficulty that arises through data confidentiality provisions which, although surmountable, can be very time consuming.
- **Limitations of Existing Data Framework(s)**. Although there are some effective frameworks in place for data storage, maintenance and/or sharing, there still needs to be improvements made if the region is to achieve greater levels of sharing of broader ranges of data. The region lacks general conformance (and consensus) with open standards like those supported by Open Geospatial Consortium (OGC). Data maintenance is occurring at high levels for some critical data sets (for example, GIS data maintained under the CPA (RLID) comprises mainly addresses, administrative boundaries, and, historically, taxlots. Natural resources and Census data, on the other hand, tend not to be centrally maintained and not well stewarded for shared regional purposes. The restrictive nature of some frameworks is also viewed by some as a weakness.
- **Lack of availability of Social Equity and Environmental Justice data**: Although a number of data categories were identified as being "gaps" in the regional data inventory; survey respondents, workshops and meeting participants have consistently and definitively identified Social Equity and Environmental Justice as a data category where data gaps currently exist. Though not as resounding, other data categories with identified gaps include Economic, Public Health, Climate Change and Energy and Human Capital data (Figures 9 through 12).

3.3 Opportunities

Feedback from local staff through the survey and through the Regional Data Advisory Committee, and an evaluation of strengths reveals a number of opportunities with respect to data in the region. Several key opportunities are outlined below.

Opportunities

- **Availability of data:** There is a large amount of data out there, and various new technologies allow data to be more easily collected or obtained.
- **Public health reform:** Changes in the public health sector have meant an increase in the amount of data collection related to public health. The Community Health Assessment, the Community Health Improvement Plan, and Mobilizing for Action through Planning and Partnerships (MAPP) are various health-related efforts undertaken in recent years.
- **The Lane Livability Consortium** will continue in a capacity that is as yet undetermined. In any case, it will provide a mechanism for perpetuating the momentum of the work initiated by the original project. It will serve as a support to all efforts requiring the convening, collaboration and sharing of regional partners. This is a significant opportunity.
- **Existing Data Sharing Frameworks:** The frameworks that exist (including those outlined under Section 4.2) are an undeniable strength that present significant matching opportunities. These include existing relationships and organization that can be built upon and broadened, or strengthened in other ways.
- **Regional Data Clearinghouse:** The survey, as well as all meetings and workshops, suggest unanimous support for the opportunity to pursue more coordination on region-wide data management efforts. More specifically, interest has been expressed broadly for a centralized "clearinghouse" that could provide the region with a "one-stop data hub." The clearing house could store data in variable formats that can be used across disciplines. LCOG, Lane County and United Way were mentioned as examples of agencies that could serve as a regional data-keeper. The concept would involve some centralized management; however, it has been recommended by some that the framework should allow for agencies and individuals to maintain the data they "contribute." Although the idea of a shared clearing house requires significant additional consideration, more specific alternatives and ideas are presented and evaluated in Section 4.0. Using data to tell a story: A consistent message heard from individuals was that people are more likely to respond to a story, emotion and feelings rather than a list of statistical data. There is an opportunity to increase the use of good data in supporting the various efforts of regional agencies if the data can be presented as a story. The public and decision makers will be able to associate with stories and understand the reasoning for the work being completed.

Opportunities (continued)

- **The potential of appropriate use of Open Source technologies:** There are promising examples in the nation (and world) of regions utilizing Open Source technologies for the organization and sharing of data. Open Source technologies provide access via free license to a product's design or blueprint, and promote universal redistribution of subsequent improvements to it. One great advantage to open source technologies is that they broaden the field in which public and private entities can develop potential solutions to relevant data challenges. An example of this would be a regional effort to promote the development of API (Application Programming Interface) resources, in part by providing less restricted access to regional data sets. Tapping Open Source options and other creative solutions may provide part of the answer for how data sharing can happen more efficiently. The "Open Data" movement reflects a broad spectrum of applications. Not all elements of this spectrum may be appropriate for the region at this time. More specific open source alternatives and ideas are presented and evaluated in Section 3.2.1
- **Increased Sharing of Plans and Other Regional Documents.** Mentioned earlier in this report, the University of Oregon Library's Local and Regional Documents Archive (LRDA) https://scholarsbank.uoregon.edu/xmlui/handle/1794/7549 provides a valuable central repository of significant documents produced by local governments in all of Oregon. The LRDA has tremendous potential to be more broadly and actively utilized as the widely utilized and recognized repository for current and historic documents. No comparable resource currently exists within the region.

3.4 Threats

Feedback from local staff through the survey and through the Regional Data Advisory Committee reveals a number of threats with respect to data in the region. Several key threats are outlined below.

Threats

- **Staffing limits:** For the amount of data that is available, and the need to be able to manage that data, there is not enough staff time to have someone devoted solely to data. Most staff today are overworked and, historically, there have been limited opportunities for data partnerships with other agencies.
- **Determining community needs:** In order to serve the community, public agencies need data and information about who the community is, what their needs are and what they want from their local governments. This itself poses a challenge because of the need for community surveys and other tools to assess public opinion, which can be costly and time intensive to develop and administer.
- **Cost of data:** Collecting, managing and updating data is extremely expensive. In times of fiscal austerity and limited revenues, agencies do not have the capacity to devote resources to data.
- **Transparency:** There is a need to provide sources for data, information on how the data was collected and the how the data was interpreted. Due to the possibility of manipulating data and skepticism, increased transparency will ensure accuracy.
- **Can desire and momentum for change survive the complexity of "transition."** There is an important difference between change and transition. Change is the important strategic initiative that we are trying to achieve. Transition on the other hand, is the internal process that staff and decision makers must go through to adapt to the change, and the new situation it presents. Until individuals and organizations successfully transition from an old way to a new way, the change won't happen.
- **Data strength and weakness perception paradox.** There is a noteworthy strength/weakness perception paradox that exists related to data within the region. GIS Coordinators are the gatekeepers of GIS data (spatial data). The efforts of these individuals are largely directed toward GIS data maintained under the Cooperative Project Agreement (CPA). This group expresses the quality and access strengths of the data they manage, and though this may be entirely true, it should not de-emphasize the relative access and quality weakness of other datasets. There may also be a tendency for the current strength of some data elements in the region to draw attention and resources away from other emerging data needs. An understanding of the funding flows that create and maintain data go a long way towards explaining data currency, quality, availability, how well it is cataloged, publicized, and shared, now and in the future.
- **An emerging trend at the Regional GIS Partnership level is movement away from centralized GIS data stores**. Individual Data Plans will be important and will need to address data as a shared regional asset in a distributed multi-agency setting. Within such a framework, solid mapping of the data funding streams/network will be both an indicator and predictor of sustainability.

4.0 Considerations and Alternatives for Moving Regional Data Sharing Forward

The contents of this report and its appendices, included the regional survey, Regional Data Catalog, and baseline assessment as a whole provide useful information that can facilitate immediate improvements in data sharing, collaboration and understanding. There remains, however, a need to capture the momentum of the process and clearly outline next steps.

With the establishment of a baseline assessment of data in the region, including an outline of strengths, weaknesses, threats and opportunities, a foundation is in place for presenting a reasoned set of alternative next steps for the development of a regional data strategy to move regional data coordination forward.

4.1 Advisory Committee Meeting Considerations for Moving Forward

A majority of a January 22, 2014 meeting of the Regional Advisory Committee was dedicated to a discussion of these "Next Steps." Committee members were divided into three break out groups and were tasked with answering the following three questions:

1. What should the primary goal(s) and objectives of a Regional Data Strategy be?
2. What do you view as the key steps that should be taken to explore the feasibility of a Regional Data Strategy?
3. What are the concerns you have about implementing a Regional Data Strategy?

The following responses were assembled from notes taken down on flip charts for the separate groups. Similarly themed responses were combined in some instances. Where this occurred an asterisk represents the number of groups (not individuals) that mentioned it.

4.1.1 Primary goal(s) and objectives of a Regional Data Strategy

The Advisory Committee identified the following primary goals and objectives for a Regional Data Strategy:

Noted by All Groups	• Improve the inclinations of staff and public (of all kinds) to take a broader look at potentially applicable data of multiple types, by improving the potential for success in such efforts. • Free access, Transparency in data (non-privileged) • Reduce duplication/redundancy of collection and analysis. Develop policies for maintenance and oversight • Define and implement a TOOL that can inventory, share, and maintain relevant data. Create more access and data sharing efficiency (e.g. No more than 3 mouse clicks to find the data). Develop data standards (e.g. naming conventions for iterative data, etc.) Need to know the "data librarians" - who do we call to learn more?
Noted by two groups	• Support highest priority common needs. Identify high priority gaps • Ensure that access to data is available for non-Governmental groups.

	Accessible to all deemed to have access. Define audience and different levels of access. • Define and address different data types raw/aggregate/synthesized. Include synthesized and analyzed data forms.

4.1.2 Key steps to explore the feasibility of a Regional Data Strategy

The Advisory Committee identified the following key next steps that should be taken to explore the feasibility of developing a Regional Data Strategy:

Noted by All Groups	• Evaluate, test and better understand host technologies (develop selection criteria) • Identify funding source(s) for updating and maintaining – commitment at high staff levels • Cultivate "champions" and supporters at all levels (primarily decision makers). Needs to be clearly recognized by these individuals as an answer to the identified problems.
Noted by two groups	• Continue research of tools and examples of new technologies. Begin building applications. • Do a feasibility (perhaps even a Return on Investment) assessment. Do alternatives (vendor, open source, etc.) pencil out? • Identify where the future resource will be kept and maintained; who?, where?, etc. • Prioritize which data gaps could be addressed and steps to do so. Are they any gaps we all really want to address?

4.1.3 Concerns about implementing a Regional Data Strategy

The Advisory Committee identified the following key concerns about implementing a Regional Data Strategy:

Noted by All Groups	• Lack of resources (money and personnel) • Political boundaries and obstacles preventing progress, or realization of what otherwise seems like a logical way forward for data sharing. Only as effective as we allow ourselves to give ground (compromise). Desire to maintain control
Noted by two groups	• Maintenance and sustaining long-term commitments to be involved • Sensitivity of data (real and/or perceived). Confidentiality issues • Moving targets: Continuously shifting and evolving technology • How can we effectively generalize data while maintaining individual agency/organizational relevance? (example: Data at varied geographies)

4.1.4 Willingness to Participate and Organization Needs for a continuation of the Regional Data Strategy

When asked about willingness to participate in and organizational needs that would be needed to support continued development of a Regional Data Strategy, Advisory Committee members offered the following:

Noted by All Groups	• Find ways to integrate with existing resources, work programs and commitments. Integrate systems. Make a direct connection to participant's existing workload
Noted by two groups	• Must answer the question: What is the value of continued effort on my (my organization's) part? Clear gain for each participant must be identified. Staff must make the case to their superiors. • Commitment from key decision makers • Funding, Policies and Mandates. These will allow decision makers (including elected officials) to prioritize participation in an ongoing effort, and to support it. • Continued assistance is possible if needs/hours are limited and defined • Ongoing issue: Even if funding is available, staff may not literally have time/capacity to participate further

4.2 Data Sharing Framework Alternatives

A clear theme which emerged from the surveys and all forms of formal and informal feedback included the need for improved data access and sharing. Though not addressed in any depth within the survey, the actualization of some form of "Data Commons" has been a topic that the Regional Data Advisory Committee has afforded some amount of attention.

Early on the concept of data sharing was characterized by the committee as a concept that falls along a wide spectrum. Three approaches were used by staff to roughly represent some potential frameworks options along that spectrum.

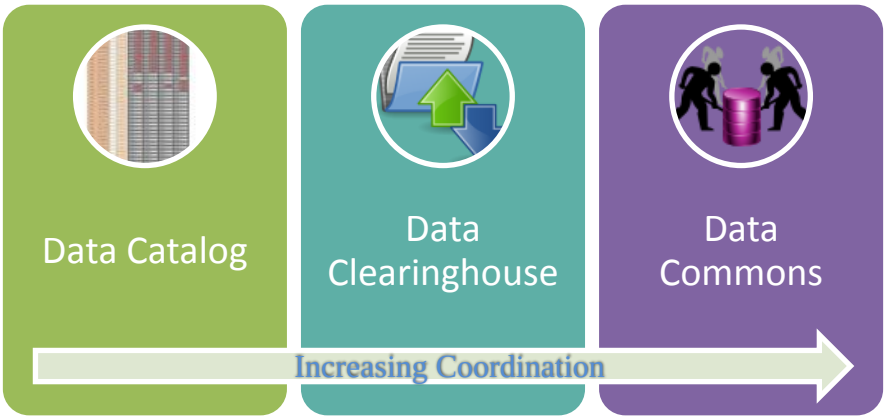
- **Inventory or Catalog**: This approach, on the less "cooperative" end of the spectrum, would involve simply assembling a comprehensive listing of data (thematic or otherwise) with information on where and/or how it might be accessed. This is essentially what staff and the committee have developed with the Regional Data Catalog. The resource undoubtedly encourages broader data sharing because it increases awareness of what data exists and how to obtain it. Absence of such a resource was widely identified by survey respondents and others as lacking.
- **Data Warehouse (Clearinghouse):** These approaches generally make data available for download without any type of visualization or interpretation. This approach would involve some sort of shared space, but would also provide further and/or more specific data access. The access would/could be indirect access through links or sourced data to where individual agency/organization data resources are held and maintained. In a data warehouse scenario, the data from all sources would be housed (and perhaps maintained) in one central location. Access to the data would be direct. Some examples

that may be considered on this end of the spectrum are RLID (the website), the Oregon Geospatial Data Library (using Geoportal), and Open Colorado (discussed under Section 4.2.1).

- **Data Commons:** A Data Commons is an online application that serves as a storage space for data, as well as an interactive platform for exploring community data, and potentially a collaborative space for engaged analysis. A Data Commons would fall along the more cooperative and "sharing" end of the spectrum. Data Commons host official data from national, state and municipal sources, as well as community sources. Additional elements that might characterize a Data Common include the following:
    - Uploading datasets by partners for collaborative community analysis
    - Exploration, visualization, interpretation and sharing of data in spatial and statistical forms
    - Publishing data visualizations and interpretations onto a data visualization gallery to share with the Data Common community
    - Building on others' visualizations and re-publishing new or augmented interpretations of the data

A concept frequently noted by Committee members and other staff that might fit within this category is that of "Dashboards." Just like the dashboard on a vehicle, the data dashboard could provide quick snapshots of data sets widely held as "critical." This would be a value added component, presenting critical data in a more user friendly manner and perhaps aiding in the "storytelling" component of the data. Examples of this approach include Greater Portland Pulse and Boston DataCommon (discussed under Sections 4.2.1, and 4.2.2).

Figure 25: Three basic data sharing frameworks



Other approaches exists which would not fit explicitly into these three, but the examples provided do enable some sense for the variability of possible data sharing frameworks.

The sentiments of survey respondents and advisory committee members suggest that an inventory, though a critical resource on its own, is not a sufficient solution to the broad suite of data challenges and issues facing the region. There is, however, also a hesitancy to initially pursue some of the bolder frameworks along the lines of a comprehensive shared Data Commons. Initial solutions for addressing data sharing issues in the region may likely be found around the "Data Clearinghouse" approach level.

4.2.1 Open Source & Open Data Solutions

Open government data is viewed by some as a useful and largely untapped resource for local (and other) governments. Advocates for open data, point to examples of open data creating value in areas such as transparency, participation, self-empowerment, improved efficiency with products and services, innovation, and increased knowledge. The "Open" movement encompasses a broad spectrum of concepts and philosophies. The range includes entities simply utilizing Open Source programs to address issues, which would be on the less "Open" end of the spectrum, to entities providing full and open access to the their data, including, in some instances, the ability to update the data themselves. Of note is the State of Oregon's own Open Data Portal as well as Open Data policies, https://data.oregon.gov/ (powered by Socrata).

Advantages and disadvantages can be identified all along the spectrum. By opening up data, citizens are enabled to be much more directly informed and involved in decision-making. Bulk access to data may also be significantly cheaper than providing data in other more controlled formats (such as an application with high demand). Still, Regional Advisory Committee members warned that if not carefully pursued, open solutions could easily result in spending more money and receiving less in return than one might with more traditional vendor solutions. Broad concern has also been expressed about "Open Data" approaches that involve public data input mechanisms. Though this might notably present some possible efficiencies and provides some empowering opportunities to the public, there is concern that data consistency and overall quality can be greatly threatened by such crowdsourcing approaches.

To address these concerns some local agencies have implemented targeted Open Source solutions with great success. For example, the City of Springfield has implemented a GIS internet application built on a complete open source stack where all software (server, web services, database, GIS server, etc.) is open source. The City has been partnering with NASA Ames Research Center to develop software to support very large and complex remote sensing data with an application called World Wind (described below). Based on cost saving and efficiency gains, the City of Springfield is advancing development efforts with this open source product to support the distribution of facilities information, customer service requests and other information regarding the design, construction, maintenance and operation of public facilities.

Though some agencies and individuals have advanced their own understanding of "Open" solutions, the region, as a whole, is relatively inexperienced in the application of these

concepts. For this reason the Advisory Committee recommends that Open Solutions be considered and evaluated thoroughly. Application of the technology should begin with suitability for a given application in mind and with special consideration for whether the data can meet the requirements thresholds of mission critical needs and applications.

The following discussion includes several Open Solution examples that the Regional Advisory Committee has discussed (or identified for further investigation).

4.2.2 Data Sharing Platforms: Introduction and Examples

Appendix D, *Data Sharing Platforms and Examples* was developed to provide an overview of data sharing platforms, including examples. These alternatives should be considered in any regional effort to develop data sharing ranging from an inventory to data commons.

4.3 General Considerations for the Development of a Regional Data Strategy

4.3.1 Key Collaboration Themes

As part of the Greater Portland-Vancouver Regional Indicators Initiative Janet Hammer, of Portland State University, developed a set of "key themes" for consideration in the development of "Community Indicators"[3] which emerged in her synthesis of a literature review and interviews. The Regional Data Baseline Assessment and Next Steps Report (this report) does not attempt to directly advise the development of a community indicators project. Still, many of the assembled recommendations are clearly applicable and useful for the development of any kind of regional data sharing resource.

Additionally, Holly St. Claire, a HUD Technical Assistance representative and Director of Data Services for the Boston area Metropolitan Area Planning Council provided LLC staff with useful insights and resources related to the development of regional data collaboration efforts. Key insights and resources from Holly St. Claire are included in the following eight key themes as well:

Define a Clear Purpose and Objective

Data that will be both used and useful is founded upon clarity of intention. Is the purpose of the data sharing strategy to educate (e.g., build awareness or understanding of issues), prioritize and catalyze (e.g., inform policy or program design or decisions), monitor (e.g., track performance), or engage (e.g., new or better collaboration to address an issue)? A used and useful system is designed to support its intended use(s). Further, these objectives need to be clearly communicated so that the value of the initiative is understood and stakeholders' expectations are aligned with the intentions of the effort.

Data Does Not Equal Meaning

Large amounts of data can make one believe that they are "drowning in a sea of data." The audience can be greatly assisted by knowing the "story" associated with the data. This could include an explanation of why the data is relevant and/or how it is collected. Information must be communicated in a way that helps people make sense of the situation and appropriately focus their attention.

Are you on Track to Your Vision and Goals?

Indicators are basically an accounting technology. Connecting them to an articulated vision and goals may make it easier for community members to contextualize the information and motivate action. Building onto strategic planning efforts, the indicator system can supply data to assess how a jurisdiction is meeting its goals.

Who's at the Table and How?

Every collaborator brings strengths to the table. Early efforts at a data common collaboration should include an evaluation of these strengths. The exercise can be viewed as putting the "data collaboration puzzle" together. While some may have strengths in IT infrastructure and capacity, others may have greater capacity in data generation,

[3] Creating Used and Useful Community Indicator Systems, Janet Hammer, PhD, Portland State University http://www.pdx.edu/sites/www.pdx.edu.cupa/files/Used_and_Useful_CIs_Executive_Summary.pdf

documentation or in program training. These should be evaluated and appropriately utilized.

Care should also be given to getting the right folks to the table at the right time, and structuring the process so that they want to remain engaged. This requires addressing the question of "WIFME" (what's in it for me?) as well as potential concerns (e.g., turf, autonomy). It also requires making sure that purpose and roles are clear, and that outreach, facilitation, and decision making processes are skillful and culturally appropriate. Keen attention must be given to the processes for reconciling perspectives and building shared understandings and agreements. Attention also must be given to issues of exclusivity: while it is important to have a core steering group, it is also important that others who are important to the project's success not be intentionally or unintentionally alienated or excluded.

Having participated in, and led, numerous data collaboration efforts, Holly St. Claire offered the following list of eight typical roles within data common collaborations:

1. *Convener* – one or more trusted intermediary (ies) who can bring diverse partners to a conversation, make connections, and can help identify opportunities to move the partnership forward.
2. *Data Stewards* – usually issue-oriented organizations that collect, clean, and contribute data sets to the data common. These are often organized along subject matter areas.
3. *Data Analysts* -- professionals who will visualize, analyze and occasionally frame the data. This typically is one or more organizations with analysts that understand and know how to make data easy to understand.
4. *Web Manager* -- professionals that will design, program and manage the web interface. These are organizations that will program the user interface of the DataCommon Website. This can be a consultant or an organization with dedicated IT support staff. This role often is more intense at the beginning of the process, and episodic during the life of the website.
5. S*ite Host* -- professionals who will host the website. This is an organization that is willing to host the DataCommon's server and maintain its server and software upgrades. This may be the same or different as the organization that programs the website. This can be on a server in the cloud such as Amazon and managed by IT staff or could be at a university or larger organization with adequate IT infrastructure.
6. *User Support* – professionals that lead the technical assistance to DataCommon users, conduct user trainings, and promote the website to ensure its use and relevancy. This can be one or more organizations.
7. *Funders/Fundraisers*- organizations who provide financial support for the Data Common, as well as organizations who are willing to create relationships with Funders and collaborate on proposals to assist in the creation, improvement and maintenance of the DataCommon.

8. *Data Common Users*- organizations and individuals who use the DataCommon. Representatives of these groups should be involved from the beginning both in the governance of the Data Common and the design of the site to help ensure the resource will be useful to elected officials, municipalities, non-profits, and grassroots organizations.

An effort within our region to collaborate could be well served by an evaluation of which among these roles could be useful and which collaborators may be best suited to various roles.

Who's Leading the Effort?
Given that regional data sharing serves the community at large, the convener of the effort should be viewed as neutral and credible. They also should not be viewed as the sole "owners" of the effort. The program needs to be stewarded by leaders who represent the diversity of community stakeholders and who can help to raise visibility and buy in. The stewardship effort includes ensuring adequate and stable resources to support program effectiveness and continuity.

Although a breadth of collaborators can strengthen a data collaboration, it is critical to identify a set of core collaborators. These organizations can add certain anchoring strength to the collaboration that can weather storms. Agencies or organizations with higher level mandates (like an MPO) can be good anchoring organizations. At the same time, the viability of the program must not hinge on a singular presence. The program needs to be institutionalized in a way that does not leave it vulnerable when an elected moves on and an administration changes.

Get the Data Sharing Resource "Off the Shelf"
End users need to be engaged in the data sharing process, and an effective strategy to bring visibility to data sharing must be in place. This may include inserting reference to the resource(s) into policy discussions and media stories, making presentations to key interest groups, maintaining an effective web presence, and creating venues for dialogue about the data, implications, and opportunities for action. Well-designed dialogic spaces in particular can be helpful for building shared understandings and agreements. Further, the data sharing resource may flourish best when it is integrated into priority setting and decision making processes.

Cross the Lines
Data sharing challenges should be seen as a systemic issue. Whether the scale is city, county, or region, a data sharing resource should be capable of crossing lines to address system issues. This means bridging public, private, and non-profit sectors, and bridging disciplines, departments, and bureaus. Such silo busting often goes against the grain, but is increasingly accepted as essential for addressing system issues. Effectively crossing those lines requires the cultivation of trust, shared language and understanding. It also means helping stakeholders see the benefits of collaborating on the indicator system benefits such as efficiencies, effectiveness, or cost savings.

5.0 Key Recommendations and Next Steps

Although the S.W.O.T. Analysis, Committee and survey feedback, as well as other sections of this report may support a broad range of recommendations related to data, the following Key Recommendations have been developed by the Regional Advisory Committee for specific consideration.

The final recommendations and the next steps which have been identified by the Regional Advisory Committee are very closely related. This section is organized as a list of recommendations organized temporally (to be addressed within the first three months, first six months, or first year) including associated next steps. There is also a category of general (potentially ongoing) recommendations.

5.1 Recommendations and Next Steps for the First Three Months

The following recommendations for consideration and steps for initiation and/or completion should be addressed within the first three months of the completion of the HUD funded phase of the Lane Livability Consortium (beginning in April 1, 2014).

Recommendation

- Continue the Regional Data Advisory Committee. This Committee and any subcommittees will be the most effective body in assuming responsibility for addressing the next steps and recommendations outlined within this report. Committee membership can be reevaluated to address member capacity and a potential broadening or reducing of involvement. The Committee could consider instituting sub-committees or "working groups" with a focus on specific tasks and/or data categories. The Committee can coordinate ongoing support mechanisms through the Lane Livability Consortium 2.0 effort taking place currently, including mechanisms outlined within these recommendations.

Next Step

- ✓ Redefine Regional Data Advisory Committee as necessary. Evaluate agency and individual participation, frequency of meetings (at least initially), and preliminary goals/tasks. Dedicate initial efforts towards forming a charter which formalizes participation and outlines necessary agreements and/or understandings. **Establish staff support at 0.1 to 0.2 FTE.** See attached cost estimate for committee support (Appendix F).

Recommendation

- Initiate regional efforts to investigate data sharing technologies, including **Geoportal,** to address improved data sharing, data transparency, and data consistency.. The region's key data players are all investigating and ,in many cases, pursuing **Geoportal** based solutions already. Consideration should be given to the data collaboration recommendations ideas outlined in Section 4.3.1 of this report.

Next Step

- ✓ Dedicate initial Committee meetings to the organization and empowerment of a subcommittee to establish goals and objectives and ultimately criteria for the

evaluation of data sharing technologies. Due to advanced local understanding of **Geoportal,** a pilot could be pursued specific to this technology, perhaps focusing on one or two Lane Livability Focus areas (e.g. Economic Development or Housing).

Recommendation

- Continue to develop and maintain the Regional Data Catalog.

Next Step

- ✓ Facilitate additional, targeted circulation of the Data Category and Key Data Sources Summaries to refine their contents and present adequately comprehensive "summaries." Evaluate and establish protocols and mechanisms for ongoing relevance.

Recommendation

- Identify a funding source(s) for updating and maintaining all forms of regional coordination. This may include a mix of outside and internal funding sources. Internal funding sources will require ongoing commitment at high staff levels. Cultivate "champions" and supporters at all levels (primarily decision makers). Those in positions of influence must have a clear vision of the benefits of any strategy. The Regional Data Advisory Committee can play a key role in this.

Next Step

- ✓ The Committee can start by coordinating ongoing support mechanisms through the Lane Livability Consortium 2.0 effort taking shape currently. A subcommittee could be identified to more thoroughly investigate funding mechanisms and opportunities to support ongoing costs including a 0.25 to 0.5 FTE position for some foreseeable duration.

Recommendation

- Monitor and act upon the multitude of coordination opportunities arising from existing data sharing frameworks (e.g. efforts within the public health sector to spur structural changes in overall coordination, strategic planning by the Regional GIS Partnership and the Central Lane MPO and efforts on the part of the University to reach out with archival (and other) resources). In any potential future data coordination strategy, give high consideration to significant existing frameworks and structures. Integration will likely be a necessity.

Next Step

- ✓ Using the "Existing Data Frameworks" section of this report as a starting place, generate a characterization and protocol for ongoing integration of existing data efforts. Dedicate part of an initial Committee meeting to the sharing of existing frameworks, presented by respective agency staff.

Recommendation

- Utilize the Livability Toolkit. The Regional Data module of the Livability Toolkit presents a unique opportunity for connecting a broad scope of data to a broad scope of "livability" issues. Those seeking data will stumble onto additional relevant "livability"

content, and those looking for answers to "livability" questions will stumble onto relevant data.

Next Step

- ✓ Promote the Livability Toolkit Regional Data Module through committee networks and activities.

Recommendation

- Continue and potentially increase involvement within the non-profit sector. These organizations have important perspectives and resources that will benefit a regional data coordination effort.

Next Step

- ✓ Share the final data report with an appropriate Non-profit Director's group in the region and forge a connection with the group including potential representation in any ongoing committee.

Other Recommendation

For GIS data, specifically, encourage broad conformance with open geospatial standards, such as those published by the Open Geospatial Consortium (OGC). (Please note that conformance with OGC standards supports interoperability between many proprietary platforms as well, e.g., ESRI, Autodesk, Oracle Spatial, SQL Server 2012, etc.).

5.2 Recommendations and Next Steps for the First Six Months

Recommendation

- Establish a protocol for region-wide utilization of the University of Oregon's Local and Regional Document Archive, as the official repository for ALL local plans, studies, reports and other relevant documents generated within the region.

Next Step

- ✓ Delegate the development of region-wide protocol to staff or a subcommittee. Review and finalize protocol. Effectively disseminate the protocol. Protocol development should be clearly coordinated with the University of Oregon through the Digital Scholarship Center.

Recommendation

- Using the Baseline Assessment of Data within this report as a starting place, outline the specific data category gaps that exist. Determine if there are gaps that exist within priority areas and consider steps to address them. Suggested areas to start such efforts would be in the categories of *Demographics* and *Social Equity & Environmental Justice*.

Next Step

- ✓ Delegate the development of a region-wide protocol to staff or a subcommittee. Review and finalize protocol. Effectively disseminate the protocol. Protocol development should be clearly coordinated with the University of Oregon through the Digital Scholarship Center.

Other Recommendation

- Give consideration to a backup for regional data, and potentially the development of a regional data backup plan that would allow for storage of essential agency data off-site to assist with recovery in the event of a large-scale natural disaster. This would include identifying data which are "essential," and establishing who may have current capability for off-site storage and might be willing to help others who don't.

5.3 Recommendations and Next Steps for the First Year

Recommendation

- Investigate the potential development of an eventual Data Common: a truly collaborative, user - friendly website or program for sharing information. This could incorporate dashboard elements, mapping elements, open data sharing and software sharing elements and even elements for facilitating conversation about data needs. Examples provided within section 4.2 of this report.

Next Steps

- ✓ Evaluate, test and better understand host technologies. Refine selection criteria and complete a feasibility assessment. Determine whether alternatives (vendor, open source, or otherwise) pencil out and whether they have promise as enduring platforms. The considerations outlined in Section 4.3.1 should be referenced in the development of efforts to accomplish this as well.

Other Recommendation

- Link to data provided by other departments. Other departments are collecting data and currently make their data available to the public on various regional websites. These data could be integrated into the future data commons. Collaboration with these departments is recommended in order to coordinate efforts on what would be the best way to distribute the data to the public.[4]

5.4 General Recommendations (with ongoing relevance)

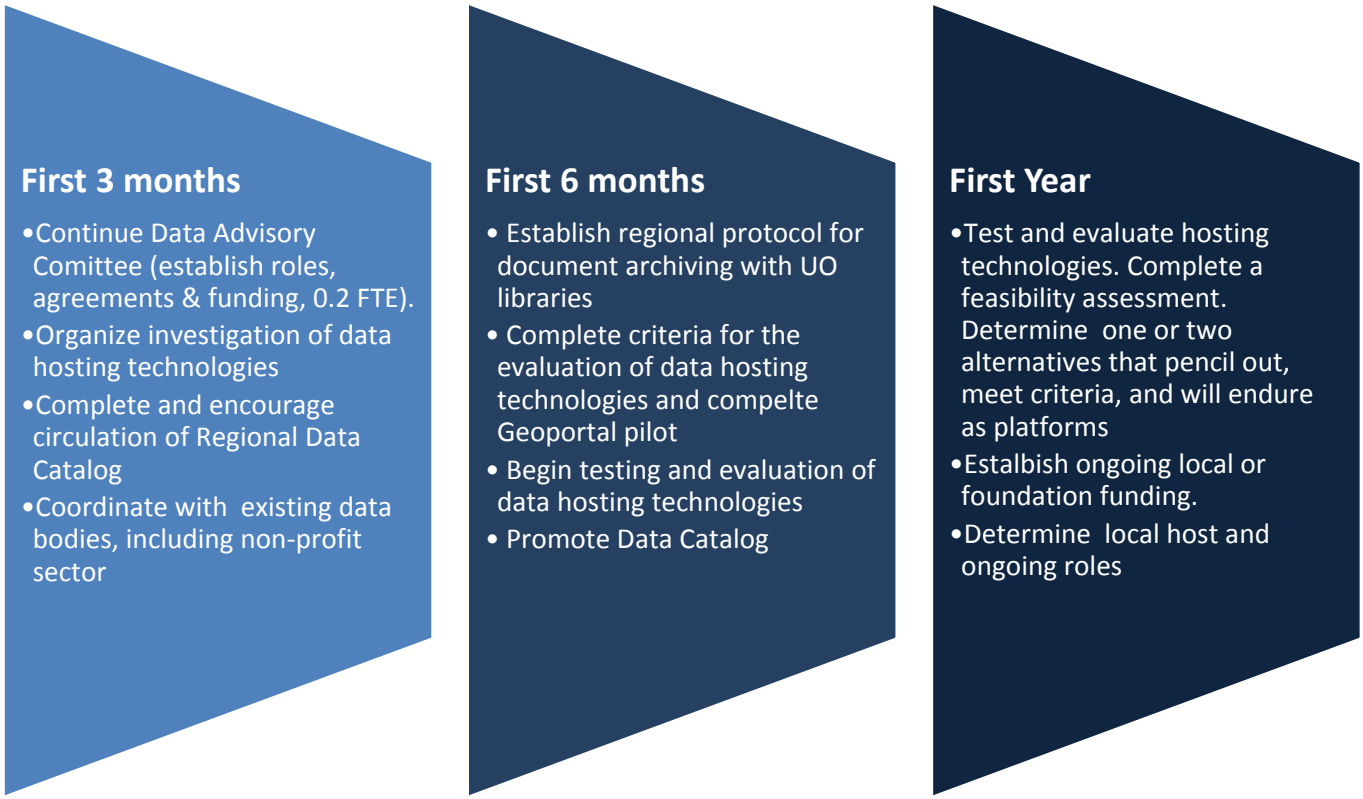
- Make it a priority , within the investigation of any data sharing framework, to create flexibility to include data types that have not always been well supported and structured. Recognize that for any solution to be effective in broadly addressing the data needs outlined in this report, it must address non-spatial data as well as spatial data. This could include different, but concurrent, efforts to address different types of data, for example, an investigation of Geoportal in addressing spatial data while looking into other platforms for non-spatial data.
- Consider Open Source Solutions and the Open data movement as whole, as solutions to regional data issues. Encourage increased familiarity with the breadth of these

[4] City of Eugene Neighborhood Analysis Recommendation's, August 2011, Monique G. López & Monica Witzig https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/12206/Eugene%20Data%20Collection%20Final.pdf?sequence=1

resources. Understand that we can institute trials applications of the concept, subject to reevaluation.

- Prioritize and encourage continued structured and unstructured opportunities for cross-disciplinary discussions about data within the region. More networking and coordination opportunities will only improve long-term outcomes for each agency. A future data sharing commons could give consideration to innovative interactive sharing opportunities.
- Give strong consideration to the political, social, organizational and cultural transitions that will need to occur in order to successfully facilitate any changes that are "established" by decision making bodies (at any level). Go into any process of "change" equipped with an understanding of, and strategy for, the "transition" challenges that may be encountered.
- Establish clear connections between data and relevant need in an effort to avoid warehousing data for data's sake.

Figure 26: Outline of the "Critical Path" for implementing Recommendations and Next Steps



Appendix A

16 August 2012

To	Stephanie Jennings, Lane Livability Consortium
From	Michael Howard, Ian Foster, Paul Hicks, Paul Leitman and Steve Rafuse, Community Planning Workshop
SUBJECT	SUMMARY OF DATA SYNTHESIS WORKSHOP

Introduction

On Monday, 30 July, the Lane Livability Consortium hosted a Synthesis Workshop in the Bascom-Tykeson Room at the Eugene Public Library between 2 and 5 PM to discuss issues around data. This included issues about accessing data, gathering and sorting data with limited financial and human resources, identifying opportunities to increase data sharing in the region, and considering how to organize and understand increased amounts of data.

Twenty-eight individuals representing fourteen agencies and organizations within the Eugene-Springfield area attended the workshop. The participants represented a cross section of public agencies and nonprofit organizations with interests in planning, transportation, housing, economic development, and health issues. A list of attendees is attached to this memo.

The meeting was led by Stephanie Jennings from the Lane Livability Consortium and Michael Howard, Ian Foster, Paul Leitman and Steve Rafuse from the Community Planning Workshop. Carolyn Burke, Jason Dedrick and Chris Pryor provided guidance for the workshop structure.

Objectives

The primary goals of this workshop were to:

- Develop a picture of our changing data needs to achieve agency and community goals
- Consider how to organize ever increasing amounts of data and sort it for meaning
- Identify interconnecting data needs and gaps
- Brainstorm challenges related to accessing, sharing and using data
- Consider actions taken by other regions to support data development and sharing
- Identify opportunities to address identified issues through other tasks of the Lane Livability Consortium

Identifying Participants Interests

The participants were asked to introduce themselves and describe what they hoped to achieve from the workshop. Below is a compilation of participant responses, followed by the frequency of responses in parenthesis:

- Discover ways to cooperate on data gathering and sharing (regional data storage) in order to decrease duplication of effort (3)

- Learn more about, and discuss a systematic approach, for the collection of data and its uses (3)
- Discuss Health Data that is available and needed (Comprehensive Health Assessment, Active Transportation) (3)
- Discuss how to use data more persuasively, to best tell the intended story (2)
- Agree on what data says/ transfer data to knowledge (2)
- Discuss ways to appropriately use statistics to avoid misrepresentation (1)
- Discuss methods of using data as a driver towards progress (1)
- Discuss shared data needs (data that is needed across, overlapping, the core areas) (1)
- Prof. Sandoval wanted to learn what is most useful for practitioners to receive from his research related to Latino Indicators (1)

Starting the Conversation

Chris Pryor of United Way, Dan Reece of PeaceHealth and Gerardo Sandoval of the University of Oregon began the conversation about data by presenting information related to their own work and experience compiling and using data. Answering the following questions started the conversation:

1. How their agency is using data, why it is important, and how their needs are changing.
2. Who wants access to data and why?
3. How does data help us get to the outcomes that we want?

Chris Pryor reported on United Way's efforts to gather key indicators and statistics about Lane County in the Leading Indicators Report, which focuses on trends in health, income, education, and other community trends. He stressed the importance of going beyond just measuring perceptual data by telling the story of what the aggregated information means, and that stories can be thought of as data with passion. Similarly, he also shared his feeling that we spend too much time trying to gather more information in an effort to put the puzzle together and not enough on understanding and analyzing the data that is already there. An important question is whether we focus on gathering more data or developing new tools for understanding the data that we already have available.

Dan Reece spoke about the development of the Community Health Assessment, and how data is important to the health care industry. He discussed the prevalence of illness data and lack of health data. Two key events are triggering a change in data collection: (1) the Affordable Care Act that requires a Community Needs Assessment and the implementation of an improvement plan; (2) the changes to the Coordinated Care Organizations (CCO), which will change how healthcare is organized and funded and the requirement for a needs assessment and improvement plan (same as stated above). The changes include a much more comprehensive view of health which is incentivized through a health finance program. The Lane County CCO is the Trillium Community Health Plan (URL: http://www.trilliumchp.com).

Gerardo Sandoval reported on his Latino Indicators Project (Task 2.3 of the LLC work program). Through open-ended and interactive workshops hosted at an elementary school in Springfield and Whiteaker Elementary in Eugene, Dr. Sandoval collected information about what the local Latino community considers to be important livability indicators. These indicators include: need for safety and security, access to community gardens and other public spaces, and perceptions regarding isolation from the greater regional community (lack of inclusivity). His work focuses on more qualitative aspects of data in an attempt to collect stories alongside traditional quantitative data.

Following the opening remarks, there was a short conversation about regional data among the group. The following ideas were expressed in this discussion:

- The problem is not the lack of data. One challenge is the unmanageable amount of data, which prevents public agencies from effectively sorting through and understanding the information. Additionally, some of the data used by agencies are not entirely adequate for what the agency needs to do. Attendees expressed a need for more organization and simplicity of the data to facilitate their daily work.
- Data has a trust issue. Since data can be manipulated and used to misrepresent reality, people must be cautious on how it is used and interpreted.
- Data should be a puzzle, not a mystery. All the information we need should be available, and we only need to put it together (like a puzzle). Data should not be something we need to go out and find (like a mystery).
- Data must tell a story. Agencies should use data to tell a story so that the public can easily digest and understand the information, rather than become encumbered with statistics and data (i.e., develop a story out of conditional data that interacts with behavioral aspect). Funders are keenly interested in data synthesis (and cooperation among agencies).

Gaps, Opportunities and Challenges

Following the short conversation, the attendees broke out into four groups. Each group, discussed the gaps, opportunities and challenges of data.

Gaps

Among the four groups, there were common themes about data gaps within the Eugene-Springfield area. These gaps are a lack of knowledge about data collection and management, time and financial constraints, and partnerships with other agencies.

- **Lack of knowledge about data collection and management of data**: Agencies know what information they want, but they do not where the data is stored or who they should speak with to get that data.
- **Time and financial constraints**: A lot of money and time are required when data needs to be collected. These temporal and financial gaps are difficult to fill, especially in times of financial hardship.

- **Interagency partnership**: A lack of communication and collaboration between agencies concerning data collection and use creates inefficiencies. Also agencies are unaware of what data has already been collected and each agency has different methods in which the information was gathered.

Opportunities

The groups also identified opportunities with data in the region. These opportunities ranged from the availability of data, public health reform, regional clearinghouses, and using data to tell a story.

- **Availability of data**: There is a large amount of data out there, and various new technologies that allow data to be easily collected or obtained.
- **Public health reform**: Changes in the public health sector have meant an increase in the amount of data collection related to public health. The Community Health Assessment, the Community Health Improvement Plan, and Mobilizing for Action through Planning and Partnerships (MAPP) are various health-related efforts undertaken in recent years.
- **Regional clearinghouse**: Attendees referenced the opportunity to have one agency coordinate region-wide data management efforts. A centralized "clearinghouse" could provide the region with a "one-stop data hub" that could be made available to store data that can be used across disciplines. LCOG and United Way were suggested as examples of agencies that could be the regional data-keeper. The concept would involve some centralized management; however, various agencies and individuals would contribute data.
- **Using data to tell a story**: People are more likely to respond to a story, emotion and feelings rather than a list of statistics. To support the various efforts of regional agencies and to provide context to the work they are doing, data can be presented as a story. The public will be able to associate with stories and understand the reasoning for the work being completed.

Challenges

The attendees of the workshop also identified the challenges faced by regional agencies concerning data. This included staffing limits, determining community needs, cost of data and transparency.

- **Staffing limits**: For the amount of data that is available, and the need to be able to manage that data, there is not enough staff time to have someone devoted solely to data. Most staff today are overworked and there are limited opportunities for data partnerships with other agencies.
- **Determining community needs**: In order to serve the community, public agencies need data and information about who the community is, what their needs are and what they want from their local governments. This itself poses a challenge because of the need for community surveys and other tools to assess public opinion.
- **Cost of data**: Collecting, managing and updating data is extremely expensive. In times of fiscal austerity and limited revenues, agencies do not have the capacity to devote resources to data.

- **Transparency**: There is a need to provide sources for data, information on how the data was collected and the how the data was interpreted. Due to the possibility of manipulating data and skepticism, increased transparency will ensure accuracy.

Next Steps

The following were identified as next steps and opportunities for the Lane Livability Consortium and the region to pursue in the future:

- **Cross-disciplinary discussions are invaluable for the region**. More networking and coordination opportunities will only improve long-term outcomes for each agency. Some innovative ideas for such collaboration opportunities are to have regular luncheons, meetings or wine socials.
- **Create an inventory** of what data already exists, what is being collected, and what data each agency would like to have. This will form a baseline understanding of the region's data needs.
- Use the opportunities arising in the public health sector to spur structural changes in other Core Areas and other planning fields.

Identified Planning Team for Next Meeting

The following people expressed interest in planning the next meeting:

- Carolyn Burke, City of Eugene
- Ellen Currier, Lane Council of Governments (recommended)
- Jason Dedrick, City of Eugene
- Angela Phinney, Lane Council of Governments
- Chris Pryor, United Way (Eugene City Council, Ward 8)
- Mike Sullivan, City of Eugene

Data Sharing Workshop List of Participants

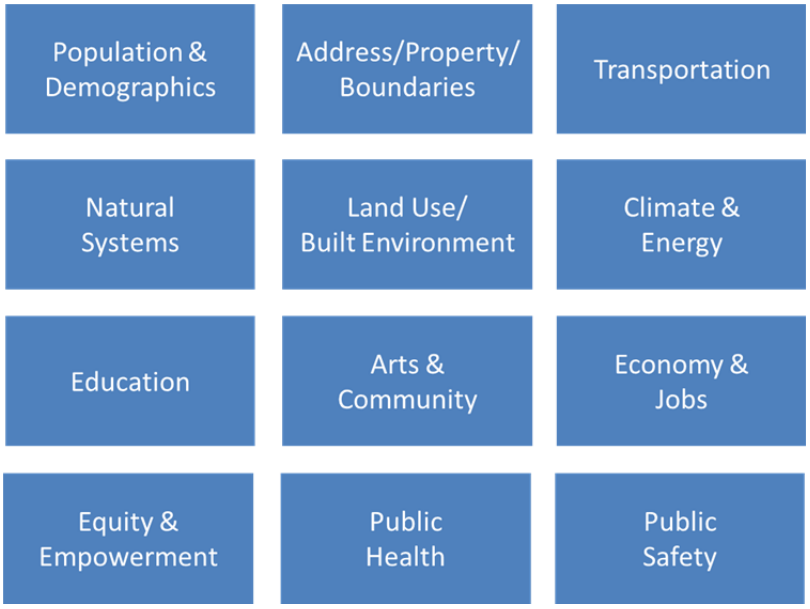
Name	Organization
Megan Banks	Lane Council of Governments
Barb Bellamy	Eugene School District
Theresa Brand	Lane Transit District / point2point Solutions
Carolyn Burke	City of Eugene
Anne Celovsky	Lane County Public Health
Stacy Clauson	Lane Council of Governments
Karen Clearwater	Oregon Housing and Community Services (OHCS)
Nora Cronin	St. Vincent de Paul
Jason Dedrick	City of Eugene
William Ellis	City of Eugene
Michael Engelmann	City of Springfield
Felicity Fahy	Eugene Water & Electric Board
Karen Gillette	Lane County Public Health
Len Goodwin	City of Springfield
Courtney Griesel	City of Springfield
Jennifer Jordan	Lane County Public Health
Heather O'Donnell	City of Eugene
Abigail Ofori-Amoah	Neighborhood Economic Development Corporation (NEDCO)
Angela Phinney	Lane Council of Governments
Chris Pryor	United Way (Eugene City Councilor, Ward 8)
Dan Reece	PeaceHealth
Mark Rust	Lane County
Gerardo Sandoval	University of Oregon
Sandy Shaffer	City of Eugene
Mike Sullivan	City of Eugene
John Tamulonis	City of Springfield
Paul Thompson	Lane Council of Governments
Kurt Yeiter	City of Eugene
Sarah Zaleski	City of Eugene

Appendix B

Regional Data Catalog

March, 2014

A product of the Regional Data Advisory Committee of the Lane Livability Consortium



Disclaimer

The information contained within the Regional Data Catalog undoubtedly moves the ability for broader data coordination and understanding forward. The **catalog is, however, currently incomplete**. It serves as a useful place to continue the aggregation of relevant sources, plans, datasets and contacts, and must be maintained and updated in order to be relevant and useful.

Regional Data Catalog

The Regional Data catalog is a key product associated with the Regional Data Baseline Assessment and Next Steps Report, completed by the Lane Livability Consortium. The baseline assessment of data necessitated the development of a data framework and inventory.

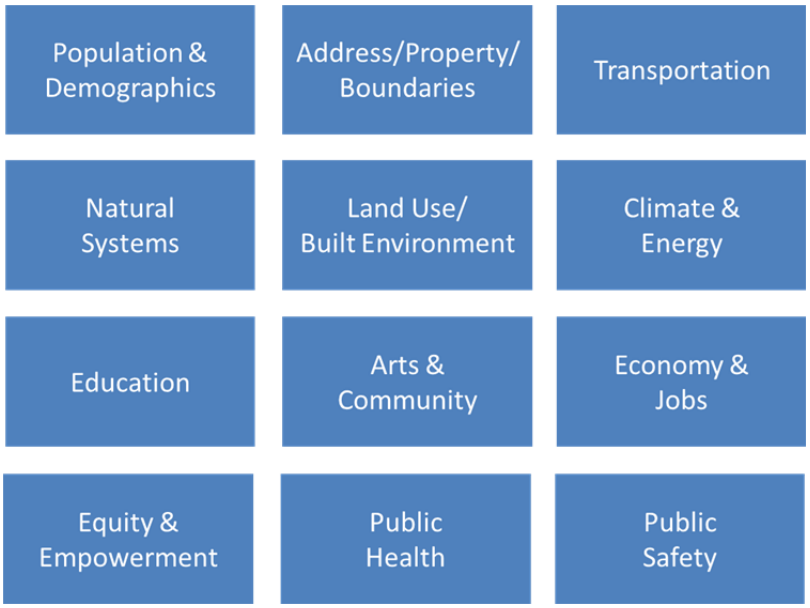
Significant time at the Regional Advisory Committee level was dedicated to the development of a framework for an inventory of data. Ultimately, time and resource constraints necessitated a fairly basic preliminary framework approach. The approach ultimately pursued was viewed by the Advisory Committee as a reasonable balance between the constraints of the project and the necessity to develop a better understanding for data availability at both an agency/organizational and thematic level.

The fundamental concept was to provide a resource for improved access to, and understanding of, data in the region. Following is an introduction to and discussion of the contents of the Lane Regional Data Catalog (Appendix B).

Key Data Categories

Using a data framework established by Sustainability Tools for Assessing & Rating Communities (STARS)[1] as a starting place, LCOG staff developed twelve key data categories for the Regional Data Catalog framework. The categories were reviewed by the advisory committee and minor changes were made. The categories, although attempting to be as comprehensive as possible, do not cover every possible component of "data" within the region. They do cover areas determined by the advisory committee to be "key" categories related to sustainability. The categories are presented in Figure 1.

Figure 1: Data Inventory Framework Containing Key Data Categories (adjusted from STARS framework)



[1] http://www.starcommunities.org/about

The Regional Data Catalog is organized by data categories. A summary was developed for each category. The summary was framed as a sort of "state of the data category" resource that would include a narrative description of the category including an orienting introduction to the category and answers to the following characterizing questions:

- What are the key uses/applications of this data?
- Who/what are the key organizations associated with this data?
- Who are the key holders of this data in the region?
- What are common, or key, data sets in this category?
- What are the committees, or boards that influence this data?
- What are the common formats the data is found in?
- What geographic scope is the data typically found at?

The task of tracking down the answers to these questions was and is not a simple one. That task was led by LCOG and Lane County staff but ultimately fell to the Advisory Committee as a whole. Each data category summary sheet was started by an individual committee member, typically one with unique expertise in the category. The results were then shared among committee members and beyond and additions and feedback were incorporated into the final drafts. Though the data category summary sheets may not all be fully comprehensive currently, they represent information gathered by numerous data users and managers representing numerous professional disciplines and organizations. Also of note is the fact the elements of the Regional Data Catalog are intended to be iterative with ongoing update and refinements. They will ideally serve as a useful and ongoing place for assembling any missing or new content.

Key Data Sources

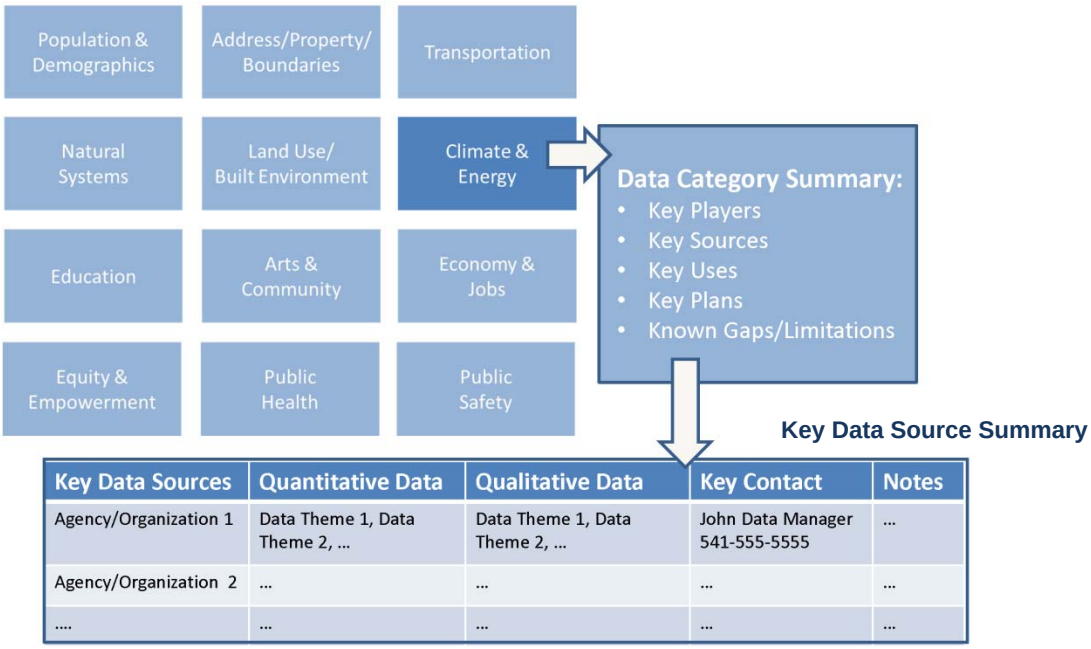
The second element of the Regional Data Catalog, and serving as a companion resource with the Data Category Summary sheets is the Key Data Sources Summary sheets. While the Data Category Summary sheets provide a thematic summary of data, the Key Data Sources Summary Sheets provide an organizational (sources) based summary of data. It outlines, at a summary level, which organizations have which data. They include the following information:

- The Key Data Source (Agency/Organization)
- Quantitative Datasets available through Agency/Organization (at a thematic level)
- Qualitative Datasets available through Agency/Organization (at a thematic level)
- Key Contact(s)
- Notes

The Key Data Sources Summary sheet is intended to be the primary resource that connects those seeking data to those who have it (or may be able to direct them further). Development of the Key Data Sources Summary sheets followed the same methodology as the Data Category Summary sheets, and just as the Data Category Summaries, they are intended to be updated and iterative.

Figure 2 provides an overview of the Inventory Framework represented by the Regional Data Catalogue.

Figure 2: Overview of Regional Data Catalog Inventory Framework



Key Data Sources	Quantitative Data	Qualitative Data	Key Contact	Notes
Agency/Organization 1	Data Theme 1, Data Theme 2, …	Data Theme 1, Data Theme 2, …	John Data Manager 541-555-5555	…
Agency/Organization 2	…	…	…	…
….	…	…	…	…

Although the intent is for each of the categories to be mutually exclusive, in a few cases data sets are included in more than one category for example, street networks are listed under both Land Use and Transportation).

Data Category Overview: *Address/Property/Boundary*

Introduction to Address/Property/Boundary Data

Address data describes point locations for addressable structures in Lane County. Standardized address fields contain the mailing address; with additional fields in place to indicate the address land use and a variety of geocoded boundary information. The regional address data is maintained at LCOG by assembling and processing building permit information provided by the various permit-issuing jurisdictions within Lane County. Quality control reports, air photos, user feedback, field verification, and other sources are used to maintain accuracy of the address data. Data collection, maintenance and support for the key data sets within this category are funded through the Cooperative Project Agreement (CPA) and managed through the Regional GIS Partnership. This makes Address, Parcel and Boundary data among the highest (if not the highest) quality data in the region.

The point address data, along with a road data set, is also used to create a linear road network with odd/even address ranges.

Property data is typically referred to as "tax lot" data and represents the property ownership boundaries for all property in Lane County. Property information is contained in a set of "production" tax lot data files maintained by Lane County Assessment & Taxation. The production tax lot data is built and maintained on top of a survey-quality set of Public Land Survey System (PLSS) data comprised of control points and lines. Accurately digitized subdivision plats and minor partitions are provided by Lane County Surveyor, Eugene Engineering, and Springfield Surveyor as input to the tax lot update process. Each week a copy of the production tax lots are provided to LCOG staff who then perform an extract, translate, load (ETL) process to create a "publication" tax lot data set that contains additional fields for property ownership information, assessed values, and boundary data. The data-rich publication tax lot data is typically the GIS data used for research, analysis, and mapping.

There are a number of "boundary" files that are maintained within the region that add additional value to the base data, and to other data sets. For the purpose of this data category only those boundary files that are jurisdictional in nature are described. These types of files (see below) comprise elective districts, city limits, service districts, and other regulatory zones.

The "Key Datasets" outlined below are a reviewed list of datasets viewed as broadly applicable and utilized. The Key Agencies for address/property/boundary data listed below obtain and manage numerous datasets from local, state and federal agencies, and some generate their own data. These key organizations do not necessarily have all datasets but are a useful starting place for obtaining data.

Key Data Sets/Access	
PROPERTY DATA	
• PLSS Control Points	/Lane County, Eugene, Springfield Surveyor
• PLSS Township/Range/Section Lines	/Lane County, Eugene, Springfield Surveyor
• PLSS Donation Land Claims (DLC's)	/Lane County Surveyor
• Plats – Subdivisions and Minor Partitions	/Eugene Engineering, Springfield Surveyor, Lane County Surveyor, Lane County A&T, Lane County GIS
• Property Ownership – Tax Lots	/Lane County A&T, LCOG
ADDRESS DATA	
• Site Address Points	/LCOG, Lane County GIS
• Address Range Road Lines	/LCOG
BOUNDARY DATA – JURISDICTIONAL	
• City Limits	/LCOG
• Annexation History	/LCOG
• Urban Growth Boundary	/LCOG
• Utility Service Districts	/LCOG
• Transit Districts	/LCOG
• Council Ward Boundaries	/LCOG
• Commissioner Districts	/Lane County GIS, LCOG
• Park Districts	/LCOG, Lane County GIS
• Election Precincts	/Lane County GIS, LCOG
• LCC Board Zones	/LCOG
• State Representative Districts	/LCOG
• State Senate Districts	/LCOG
• Neighborhood Groups	/LCOG/Eugene Public Works Engineering
• Zip Code Boundaries	/LCOG, Lane County GIS
• Building, Sanitation, Electric Inspection Zones	/Lane County GIS

Key Agency/Organizations	
• Lane Council of Governments	• Lane County Public Works – Surveyor
• Lane County Public Works – Land Management	• Lane County Assessment & Taxation
• US Bureau of Land Management	• City of Eugene Public Works Engineering
• Lane County GIS	• Eugene Water and Electric Board
• Springfield Utility Board	• Emerald People's Utility District
• City of Springfield Technical Services	• Lane Community College
• Lane Transit District	• Lane County Elections Department
• City of Eugene Planning and Dvlmpnt.	• City of Eugene Manager's Office
• City of Springfield Manager's Office	• Blachley-Lane Co-op
• Lincoln People's Utility District	

Primary Data Contacts

- Lane Council of Governments
- Lane County Information Services GIS
- City of Eugene Public Works
- Lane County Public Works
- City of Springfield Public Works
- Eugene Water and Electric Board
- City of Springfield Technical Services

Key Data Uses

Property Data - Control

- Serve as the primary basis for accurately locating and depicting other property-related data, such as subdivisions and tax lots.

Property Data – Tax Lots

- Provide a visual representation of the property ownership boundaries.
- Serve as a framework for assembling other data at a tax lot-specific level.
- Display and analyze property value information – improved value, owner type, etc.
- Provide a means to contact property owners based on a user-defined geography.
- Serve as a reference layer for creating other data layers; such as other boundary files.

Address Data

- Provide a visual representation of address data, such as building type and location, owner, etc.
- Serve as input for creating the Public Safety-related files; such as the Master Street Address Guide and the Computer Aided Dispatch System.
- Used to provide a geographic component (x,y coordinate) to external files that have an address field. These are done through address matching routines and address geocoding processes.
- Provide population estimates by assigning average household size to residential address locations.
- Create site address mailing-labels for user-specified areas.

Boundary Data – Jurisdictional

- Understand which areas are within a certain jurisdiction by comparing to property and address locations.
- Provide a means to trigger other boundary layer changes. Such as an annexation to city limits thereby triggering a change in zoning status.
- Provide information to the public describing which elected officials serve their area of interest.
- Help balance workloads for building permit inspections.

Key Committees/Consortiums/Forums for Data Coordination

- Regional GIS Steering Committee
- Regional GIS Coordinators Committee
- Regional Address Subcommittee
- Regional Tax Lot Subcommittee

Key Plans Related to Address/Property/Boundary Data

- Regional Tax Lot Maintenance Plan (plats)
- Regional Cooperative Project Agreement
- State of Oregon Department of Administrative Services GIS Data Standards

Key Data Formats

Address/Property/Boundary data is available in numerous formats. A significant number of datasets are available in GIS (spatial) format, which requires special software. Many primary data contacts can provide mapped materials or tabular extracts from GIS datasets (in excel, or other spreadsheet formats). Significant amounts of data also exist within studies and reports, or in the form of printed maps and imagery (including site and aerial photos).

Key Sources

Address/Property/Boundary data is collected and maintained at the County and City Survey/Engineering, County Assessment & Taxation and County Land Management (according a Regional Tax Lot Maintenance Plan). Lane Council of Governments makes publication quality versions available for GIS viewing. These sources are available

Geographic Scope of Data

Address/Property/Boundary data is collected and maintained at the county geography scale, for specific purposes related to taxation, agency responsibility and navigation. State and Federal agencies, as well as private companies (title companies for example) seek to acquire this data from multiple counties to assemble into region wide data sets. For this purpose the state has created standards and in some cases rewards for meeting their standards.

Data Collection Frequency

Property and Boundary data is maintained based on formal processes including building permits, deeds, plats and District Annexations. New Control data is collected by Cty and County Survey to augment BLM published PLSS control layers. Additionally Lane County keeps a file of surveys by private land surveyors. Address data is updated regularly in each agency.

Data Accessibility

Address/Property/Boundary data is available in an array of internet applications published by Lane County and RLID by Lane Council of Governments.

Address/Property/Boundaries: Key Data Sources Table

Key Data Sources	Data Sets	Contact	Notes
Lane Council of Governments & Lane County (RLID.org)	GIS: Address, Towers, PLSS Corners, Address Grid, Public Facilities, Tax-lots, Tax-codes, Land Productivity, Road right-of-way, Historic Tax Lot Lines, PLSS Township, Section, Quarter Section, Donation Land Claims, Plats, Lane County Surveyed Corners, Tax-lot & Tax-code Annotation, County boundary, Adjoining County boundaries, Commissioner Districts, MPO Boundary, Urban Growth Boundaries, City Limits, School Districts, School attendance areas, Fire Districts, Airport zones, Parks, National Forest, Utility service areas, Zip Code, State Fire Patrol, Community organizations Filed Documents: Filed Surveys(not digitized), Tangible Assessor maps from the 1970s used for determination of Legal Lots.	Bill Clingman bclingman@lcog.org 541-682-4548 Melissa Crane Melissa.Crane@co.lane.or.us (541) 682-6950	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
City of Eugene			
City of Springfield			

Data Category Overview: *Climate & Energy*

Introduction to Climate and Energy Data

Climate and Energy data includes data related to energy consumption, waste generation (a proxy for materials consumption). It also includes data related to climate preparedness – the ability of the community to withstand warmer temperatures, increased intensity of rainfall, reduced snowpack, poorer air quality, and others. The "Key" Datasets outlined below are a vetted list of datasets viewed as broadly applicable and utilized. The Key Agencies for Climate and Energy data listed below do not necessarily have all datasets but are a useful starting place for obtaining data. Other data sets of interest may include earthquake data, rainfall/precipitation data, flood events and flood zone information, and urban-wild land fires.

Key Data Sets/Access

• Natural Gas Consumption	/Northwest Natural Gas
• Motor Vehicle Fuel Consumption	/Oregon DOT
• Electricity Consumption	/EWEB, SUB
• Water Consumption	/EWEB, SUB
• Waste Generation and Diversion Rates	/Lane County
• Impervious Surface Area	/Cities
• VMT and Mode Split	/LCOG

Key Agency/Organizations

- Central Lane MPO (LCOG)
- Lane County Public Works
- Eugene Water and Electric Board
- Springfield Utility Board
- Lane Regional Air Protection Agency
- City of Eugene
- City of Springfield
- Oregon Climate Change Research Institute
- Oregon Department of Environmental Quality
- Federal Emergency Management Act (FEMA)
- NOAA National Weather Service
- LandFire Interagency Mapping Program
- FEMA (Federal Emergency Management Act)
- USGS Earthquake Hazards Program

Key Data Uses

Greenhouse gas inventories.
Progress reports toward achieving a) GHG reduction goals and b) climate adaptation goals

Key Committees/Consortiums/Forums for Data Coordination

- Oregon Climate Change Research Institute
- ICLEI Communities for Sustainability

Key Plans Related to Climate and Energy Data

- Community Climate and Energy Action Plan for Eugene
- Springfield Greenhouse Gas Inventory
- Eugene Internal Greenhouse Gas Inventory
- Eugene Internal Climate Action Plan
- Eugene-Springfield Multi-Jurisdictional Natural Hazards Mitigation Plan
- Eugene Comprehensive Plan
- Eugene Community Greenhouse Gas Inventory
- Eugene Transportation System Plan
- Eugene Comprehensive Stormwater Management Plan
- EWEB Energy Conservation Resource Strategy
- Eugene Stormwater Management Plan

- Lane County Natural Hazards Mitigation Plan
- Oregon's Integrated Water Resources Strategy
- Ridgeline Area Open Space Vision and Action Plan
- Springfield Stormwater Facilities Master Plan
- Springfield Stormwater Management Plan

Geographic Scope of Data

Varies: State, County, Cities, Census geographies

Data Collection Frequency

Varies

Data Accessibility

Highly Variable

Climate and Energy: Key Data Sources Table

Key Data Sources	Data Sets	Contact	Notes
Lane Council of Governments	Vehicle Miles Travelled estimates Commute to work mode split Vehicle ownership rates by neighborhood 20 minute neighborhoods assessment	Susan Payne SPayne@lcog.org	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County	Lane County Fleet Fuel Consumption; Lane County Facilities Electricity Consumption, Natural Gas Consumption, Water Consumption		
City of Eugene **City Manager's Office**	Community GHG inventory Internal (City of Eugene) GHG inventory Eugene community attitudes re: climate change and consumption	Matt McRae matt.a.mcrae@ci.eugene.or.us 682-5649	
City of Eugene **Public Works**	City of Eugene Fleet Fuel Consumption & Efficiency Area of Impervious Surface (PW Engineering)	Tony Jobanek tony.g.jobanek@ci.eugene.or.us 682-4808 Mike Miller (GIS Analyst, Supervisor) 682-5248	
Oregon DEQ	Statewide Consumption-based GHG inventory	David Allaway Allaway.David@deq.state.or.us (503) 229-5479	
City of Eugene **Facilities**	City of Eugene Facility Electricity Consumption, Natural Gas Consumption, Water Consumption Sq. Ft. of Buildings owned Sq. Ft. of buildings leased	Lynne Eichner lynne.m.eichner@ci.eugene.or.us 682-5083	
City of Eugene **Planning and Development**	Average Home Size Dwelling configuration: Single Family; Multifamily	Doug Terra doug.m.terra@ci.eugene.or.us 541-682-6035 Debbie Wells (building permits) debbie.l.wells@ci.eugene.or.us 541-682-6828	
City of Springfield	City of Springfield Fleet Fuel Consumption, Facility Electricity Consumption, Natural Gas Consumption, Water Consumption		
Eugene Water and Electric Board	Community-wide electricity & water consumption	Jeannine Parisi Jeannine.Parisi@EWEB.ORG	
Springfield Utility Board	Electricity Consumption		
Oregon Department of Transportation	Eugene Motor Vehicle Fuel Consumption Springfield Motor Vehicle Fuel Consumption	http://www.oregon.gov/ODOT/CS/FTG/Pages/index.aspx	
Northwest Natural Gas	Regional Natural Gas Consumption Eugene Natural Gas Consumption Springfield Natural Gas Consumption	DeSnyder, Jeff Jeff.DeSnyder@nwnatural.com 503.226.4211 x5506	
US Energy Information Administration	Motor Vehicle Fuel Price Average US Fleet fuel efficiency	http://www.eia.gov/	
Oregon DMV	Vehicle fleet age and fuel efficiency		
US EPA	Electricity GHG Emissions Factors	http://cfpub.epa.gov/egridweb/ghg.cfm	
Census	Commute to work mode split		
Lane County	County waste generation rate County waste diversion rate	Sarah Grimm (541) 682-4339 Sarah.GRIMM@co.lane.or.us	

Key Data Sources	Data Sets	Contact	Notes
Lane Transit District	Transit trips Transit vehicle efficiency Transit system fuel consumption		
Oregon Climate Change Research Institute	Regional Climate Change Projections	http://occri.net/	
US Global Change Research Program	Regional and national climate change projections	http://www.globalchange.gov/	

Data Category Overview: *Natural Systems & Resources*

Introduction to Natural Systems & Resources Data

Natural Systems data includes data related to water, air, wildlife, vegetation and geology (including soils). It includes some data that address Open Space and Recreation, as well as Utilities as they relate to quantity and quality of water. Natural Systems and Resources data is collected and maintained at most geographies, but the majority of useful datasets are developed by federal and state agencies. A RLID Natural Resources subcommittee is included in RLID's project organizational concept, but no such subcommittee has been organized or met. The "Key" Datasets outlined below are a vetted list of datasets viewed as broadly applicable and utilized. The Key Agencies for Natural Systems and Resources data listed below obtain and manage numerous datasets from the state and federal agencies, and some generate their own data. These key organizations do not necessarily have all datasets but are a useful starting place for obtaining data. There is some overlap in this data category with environmental health. See Public Health Key Data Sources table for examples of the data sources. Overlap is in the area of air, water quality, environmental hazards to health.

Key Data Sets/Access

• 303d Water Quality Limited Streams	/Department of Environmental Quality /LCOG
• Local and National Wetland Inventories	/Department of State Lands/LCOG
• Parks/Open Space Inventories	/Cities/Lane County/LCOG
• Local Riparian Resources	/Lane County/LCOG/ Eugene & Springfield PW
• National Floodplain Data	/FEMA/LCOG
• Endangered and Threatened Species	/US Fish and Wildlife/ODFW/LCOG
• Groundwater Quality	/DEQ/LCOG
• Air Quality (Pollution Concentration)	/Lane Regional Air Protection Agency
• Soils (Soil Map Units)	/NRCS/Lane County/LCOG
• LiDAR/Elevations	/Cities/LCOG/Lane County/DOGAMI
• National Hydrography Dataset	/USGS/ LCOG
• General Natural Hazards	/Lane County/Oregon Partnership for Disaster Resilience/DOGAMI
• Aerial Imagery	/LCOG/Lane County/Eugene and Spring. PW
• Environmental regulated sites	/DEQ
• Fish Habitat and Distribution	/Oregon Dept. of Fish and Wildlife
• Biodiversity Information	/Ore. Biodiversity Info. Center (ORBIC)

Key Agency/Organizations

- Lane Council of Governments
- Lane County Public Works
- Eugene Water and Electric Board
- Springfield Utility Board
- Lane Regional Air Protection Agency
- City of Eugene Public Works
- City of Eugene Planning and Development
- City of Springfield Public Works
- Long Tom Watershed Council
- Oregon State University
- Southern Willamette Valley GWMA
- McKenzie River Trust
- Department of Environmental Quality
- Department of State Lands
- Oregon Fish and Wildlife Service
- Oregon Water Resources Department
- US Geological Survey
- Army Corps of Engineers
- Federal Environmental Protection Agency
- US Forest Service
- Bureau of Land Management
- Federal Emergency Management Act (FEMA)
- Oregon Dept of Geology & Mined Industries (DOGAMI)

Primary Data Contacts

- Lane Council of Governments
- Lane County Public Works
- City of Eugene Public Works
- Lane Regional Air Protection Agency
- City of Springfield Public Works
- Eugene Water and Electric Board
- Springfield Utility Board

Key Data Uses

- Local Administration /Compliance with Statewide Planning Goals 5 and 6 (Maps and Exhibits for Comprehensive Plan and Development and Zoning Ordinances, Goal 5 Inventories).
- Long Range Planning (Buildable Lands Analysis, UGB Expansion analysis, parks and Open Space Planning, Conservation and Restoration Planning).
- Research (Historical resource trends and forecasting)
- Public health research, reporting and monitoring

Key Committees/Consortiums/Forums for Data Coordination

- Natural Resources subcommittee of the Regional GIS Partnership (currently not organized)
- Southern Willamette Valley Groundwater Management Area (GWMA) Committee
- Oregon Geospatial Enterprise Office
- Lane County Parks Advisory Committee
- Lane County Community Health Council

Key Plans Related to Natural Systems Data

- Community Climate and Energy Action Plan for Eugene
- Eugene Parks, Recreation and Open Space Comprehensive Plan (PROS)
- Eugene-Springfield Multi-Jurisdictional Natural Hazards Mitigation Plan
- Eugene Stormwater Basin Master Plan
- Eugene Comprehensive Stormwater Management Plan
- Eugene-Springfield Metropolitan Plan
- Eugene Urban Forestry Management Plan
- Eugene South Hills Study
- West Eugene Wetlands Plan
- EWEB Drinking Water Source Protection Plan
- EWEB Energy Conservation Resource Strategy
- Lane County Natural Hazards Mitigation Plan
- Lane County Parks Master Plan
- Lane County Rural Comprehensive Plan
- Willamette River Open Space Vision and Action Plan
- Oregon's Integrated Water Resources Strategy
- Ridgeline Area Open Space Vision and Action Plan
- Rivers to Ridges Metropolitan Regional Parks and Open Space Vision
- MWMC Facilities Plan for the Eugene-Springfield Regional Wastewater Treatment Facilities
- Springfield Stormwater Facilities Master Plan
- Springfield Stormwater Management Plan
- Willamalane Park and Recreation Comprehensive Plan

Key Data Formats

Natural Systems and Resources data is available in numerous formats. A significant number of datasets are available in GIS (spatial) format, which requires special software. Many primary data contacts can provide mapped materials or tabular extracts from GIS datasets (in excel, or other spreadsheet formats). Significant amounts of data also exist within studies and reports (many of which are listed above), or in the form of printed maps and imagery (including site and aerial photos).

Key Sources

Natural Systems and Resources data is collected and maintained at most geographies, but the majority of useful datasets are developed by federal and state agencies, key among these are the DEQ, DSL, ODFW, WRD, USFWS, USFS, BLM, EPA and NRCS . Many agencies collect and monitor resource data for reporting or other purposes. Key among these sources are EWEB, SUB, Lane County, the Cities of Eugene and Springfield, LRAPA and watershed councils.

Geographic Scope of Data

The geographic scale of natural resources and systems data cannot be typified. It varies widely federal datasets to site specific information. Location specific information can be extracted from many datasets due to their spatial formats and/or comprehensive locational attributes.

Data Collection Frequency

The collection of natural resources and systems data cannot be generalized. It varies widely from real time monitoring to inventories which occur sporadically and, in some cases, only once.

Data Accessibility

Since a lot of Natural Resources and Systems data are available in GIS format, accessing the data can prove challenging to those who don't own the expensive software to view and manage it. Some data are also very sensitive and therefore not available, including some data related to endangered and threatened species.

Natural Resources and Systems: Key Data Sources Table

Key Data Sources	Quantitative Data Sets	Contact	Notes
Lane Council of Governments	Local Wetland Inventories (GIS/Maps), National Wetland Inventory, West Eugene Wetlands, Soil Map Units, Hydric Soils, High Value Farm Soils, Floodplain (FIRM), 1996 Flood Area (GIS), Geologic Fault Lines, Wetland Mitigation Banks, 303d Listed Streams, Fish Bearing Status, Eugene Sensitive Areas, Eugene Protection Buffers, Eugene Creeks, National Hydrography Dataset, Eugene City Trees, Historic Vegetation, Seismic Data, Watershed Sub-basin Boundaries, Threatened and Endangered Species, Land cover, Aerial photography (current/historic), LiDAR, Elevations.	Bill Clingman bclingman@lcog.org 541-682-4548	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County			
City of Eugene Public Works			
City of Eugene Planning and Dev.			
City of Springfield Public Works			
Eugene Water and Electric Board			
Springfield Utility Board			
Lane Regional Air Protection Agency			

Data Category Overview: *Education*

Introduction to Education

Lane County has a broad spectrum of Education facilities and programs. This category ranges in scale from the University of Oregon to home schooling. Major concerns are with district and program funding at federal, state and local levels. Map data includes locations of facilities and boundaries of attendance areas and districts. Other data sources document teacher standards, student/school performance and district logistics. Education is related to public health, public safety and demographics.

There are 201 school districts in Oregon. Lane County contains 16. The geographic boundaries of school districts are very stable. Occasionally a change in boundary will result from an individual property owner request. These requests, as well as legal descriptions of the district boundaries can be found at Lane County Assessment & Taxation.

Though a significant amount of education data related to performance is fairly easily accessible, data specific to schools and particularly data related to specific students (although kept), is understandably highly confidential and generally unavailable expect through highly restrictive and rare intergovernmental agreements.

Key Data Sets/Access

• GIS layers: district boundaries, facilities location, attendance districts	/Lane County Assessment & Taxation, LCOG
• Open Books Project - Demographic, Financial, Achievement, Teacher, Community qualitative data (Oregon)	/http://www.openbooksproject.org
• American Community Survey (Census) : Highest education level by male/female	/US Census Bureau
• Elementary Student addresses, grade/year, school attending, free and reduced lunch, ethnicity and gender	/School Districts (highly confidential/conditional)
• College student addresses and other characteristics	/LLC & UO (highly confidential/conditional)
• Higher Education Facts and Figures	/Oregon University System

Key Agency/Organizations

- Lane Education Service District
- Public School Districts
- Lane County Assessment & Taxation
- Private Primary & Secondary Schools
- Private Colleges & Universities
- Lane County Assessment & Taxation
- Lane Arts Council
- Eugene Library Lane Community College/Library
- University of Oregon/Library
- Eugene Library
- Springfield Library
- Lane Education Foundation
- Oregon Education Association
- Oregon Department of Education
- Oregon School Boards Association

Primary Data Contacts

Public School Districts

- Bethel 52
- Blachly 90
- Creswell 40
- Crow-Applegate-Lorane 66
- Eugene 4J
- Fern Ridge 28J
- Junction City 69
- Lowell 71
- Mapleton 32
- Marcola 79J
- McKenzie68
- Oakridge 76
- Pleasant Hill 1
- Siuslaw 97J
- South Lane 45J
- Springfield 19

Higher Education Institutions

- Eugene Bible College
- Gutenberg College
- Northwest Christian University
- Pacific University
- University of Oregon
- OSU Extension Service
- Lane Community College

Child Care

- Family Connections (Lane Community College)
- Head Start of Lane County
- Early Education Program

Education Advocacy Groups

- Lane Education Foundation
- Oregon Education Association
- Oregon School Boards Association
- Stand for Children
- Chalkboard Project

Key Data Uses

- Funding Campaigns
- Demographics/Research
- School selection
- Mapping Equity and Opportunity
- Transportation and Land Use Modeling

Key Committees/Consortiums/Forums for Data Coordination

- School Boards
- Eugene Education Association
- Parent Teachers Organizations

Key Plans Related to Education Data

- University of Oregon Campus Maps http://uoregon.edu/maps
- Lane Education Service District School District map
- LCOG RLID Quick Look
- Lane County Commissioner Search
- ECO Northwest – The Economic Impacts of Oregon's Student Achievement Gap

Key Data Formats

Education data is available in numerous formats. A small number datasets are available in GIS (spatial) format, which requires special software. Many primary data contacts can provide tables, reports and rudimentary online maps. GIS layers are available from LCOG or Lane County.

Key Sources

Key data sources include enrollment data and reporting data.

Geographic Scope of Data

The geographic scale of Education Data is quite broad. The locations of school facilities and attendance boundaries are important to property owners and parents. At the County level school districts are one of the boundaries used to determine tax liability. At the State and Federal level student enrollment and demographic statistics are used for allocation of government funding.

Data Collection Frequency

The collection of Educational data cannot be generalized. Attendance areas change much more frequently than district boundaries. Performance statistics are inventoried through testing each school year (straddling calendar years).

Data Accessibility

Education data for Lane County is available as several GIS layers maintained by LCOG or Lane County. School Districts maintain data sets that are a mix accessible and highly confidential data. Statistical data is available from the State Department of Education.

Education: Key Data Sources Table

Key Data Sources	Data Sets	Contact	Notes
Lane Council of Governments	GIS: School Attendance Areas, School Districts, School Facility Location. Student data for particular years and schools. University of Oregon and LCC student data (year, address, campus).	Bill Clingman bclingman@lcog.org 541-682-4548	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County	GIS: School Attendance Areas, School Districts, School Facility Location	Melissa Crane Melissa.Crane@co.lane.or.us (541) 682-6950	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Eugene 4J School District	Student data (enrollment, performance, free and reduced lunch, ESL, grade). Budget data, facilities data	Oscar Loureiro loureiro_o@4j.lane.edu	Student specific data is confidential, and considerably limited in its availability.
Bethel School District	Student data (enrollment, performance, free and reduced lunch, ESL, grade). Budget data, facilities data	Pat McGillivray pat.mcgillivray@bethel.k12.or.us	Student specific data is confidential, and considerably limited in its availability.
Springfield School District	Student data (enrollment, performance, free and reduced lunch, ESL, grade). Budget data, facilities data	Technology Services (541) 726-3463	Student specific data is confidential, and considerably limited in its availability.
University of Oregon	GIS: Campus maps, layers, facilities CAD: Facility Mapping, As-Built Drawings Student enrollment, performance, demographics, etc.	James Meacham: Infographics Lab Director jmeacham@uoregon.edu (541)346-5788 Eric Grape: Facilities Cartographer egrape@uoregon.edu 541-346-2378	Student specific data is confidential, and considerably limited in its availability.
Lane Educational Service District	School District Boundary Legal Description Chalkboard Project	http://www.openbooksproject.org/	
Lane Community College	GIS: Campus maps, layers, facilities CAD: Facility Mapping, As-Built Drawings Student enrollment, performance, demographics, etc.	Russ Pierson: Project Coordinator piersonr@lanecc.edu (541)463-5727	Student specific data is confidential, and considerably limited in its availability.

Data Category Overview: *Economy & Jobs*

Introduction to Economy & Jobs Data

Economy & Jobs data includes data related to employment, technical innovation, occupations, investment, economic productivity and performance. It includes some data relevant to education, as well as real estate. Economic data mostly relates to the geographic scales of metropolitan areas, counties, and states, but the majority of useful datasets are developed by federal and state agencies. The "Key" Datasets outlined below are a vetted list of datasets viewed as broadly applicable and utilized. Only some of the Key Agencies for Economy & Jobs data listed below operating in the greater Eugene-Springfield metro area generate their own data; most information is accessed from state or federal databases for local analysis. These key organizations do not necessarily have all datasets, but are useful contacts for answering questions about data or directing you to other information resources.

Key Data Sets/Access

• Economic Census	/US Census Bureau
• Longitudinal Employer-Household Dynamics (LEHD)	/US Census Bureau
• Labor Market Statistics	/WorkSource Oregon (OR Employment Department)
• Employment/unemployment • Industry Profiles	/WorkSource Oregon (OR Employment Department)
• Industrial and Commercial Land Supply	/City of Eugene/City of Springfield
• Real Estate Valuation University of Oregon Economic Impact	/City of Eugene
• Business Development Assistance Statistics	/Chambers of Commerce
• Innovation Performance (Patents, Venture Capital Funding, SBIR Investments)	/Brookings Institute
• Business Site Location Information	/LCOG/Oregon Employment Department
• Lane County geocoded Employment Figures (by firm, 1978-2012)	/LCOG/Oregon Employment Department

Key Agency/Organizations

- Lane Council of Governments
- Lane County Economic Development
- Eugene Chamber of Commerce
- Lane Workforce Partnership
- Springfield Chamber of Commerce
- Neighborhood Economic Development Corporation (NEDCO)
- City of Eugene Planning and Development
- City of Springfield
- University of Oregon Center for Assessment Statistics and Evaluation
- Oregon RAIN
- University of Oregon Technology Transfer Office
- US Bureau of Labor Statistics
- US Bureau of Economic Analysis
- US Census Bureau
- Business Oregon
- Oregon Employment Department
- Department of Environmental Quality
- Brookings Institute

Primary Data Contacts

- Lane Council of Governments
- Eugene Chamber of Commerce
- City of Eugene Planning and Development
- Lane Workforce Partnership
- University of Oregon / Oregon RAIN
- Oregon Employment Department

Secondary Data Contacts

- US Bureau of Labor Statistics
- US Census Bureau
- US Bureau of Economic Analysis
- Oregon Department of Environmental Quality
- Business Oregon
- Oregon Employment Department

Key Data Uses

- Long Range Planning (Buildable Lands Analysis, UGB Expansion analysis, parks and Open Space Planning, Conservation and Restoration Planning).
- Research (Historical resource trends and forecasting)
- Employment information is also a key input into regional transportation modeling.
- Economic indicators provide support for grant applications
- Economic indicators are used for prioritization of departmental agendas and work plans.

Key Committees/Consortiums/Forums for Data Coordination

- "Big Look" Group (Committee Tasked with charting future of Lane Metro Partnership)
- Chambers of Commerce

Key Plans Related to Economy & Jobs

- Regional Prosperity Economic Development Plan
- Cascades West EDD 2010-2015 CEDS
- Local Strategic Unified Workforce Plan
- Eugene-Springfield Metropolitan Plan
- Envision Eugene project
- Springfield 2030
- 2010 Eugene-Springfield Consolidated Plan

Key Data Formats

Economy & Jobs data is available in GIS or in spreadsheets. Significant amounts of data also exist within studies and reports.

Key Sources

Economy & Jobs data is collected and maintained at geographic scales ranging from metropolitan statistical area to national. The majority of locally useful datasets are developed by federal and state agencies. Many agencies collect and analyze economic data for reports or individual project purposes. Data collected and monitored locally of interest to economic developers include tax evaluation.

Relationship of Data Lane Livability Consortium Focus Areas

Economy & Jobs, although not explicitly outlined as a key focus area of the Lane Livability Consortium, are key contributors to primary focus areas. Implementation of the Regional Prosperity Plan is a key focus of Lane Livability Consortium Task 6.4.

Economic Development: Key Data Sources Table

Key Data Sources	Quantitative Data Sets	Qualitative Data Sets	Contact	Notes
Lane Council of Governments	Demographic data, tax assessor (RLID), Employment points	Small business administration relations	Eric Brandt, Steve Digham	LCOG operates a small business loan program
Lane County		Regional Food Consortium Lead	Sarah Mizejewski Economic Development Supervisor (541)-682-6503	Links to other data sources: http://www.lanecounty.org/Departments/CAO/EconDev/Pages/EconIndicators.aspx
Lane Workforce Partnership	Employment Statistics, Job Creation	Bi-Annual State of the Workforce Report	Kim Thompson, Workforce Analyst, 541-349-9178, kimberly.r.thompson@state.or.us	
City of Eugene Planning and Dev.	Brownfields Inventory, Business Development Fund Statistics, Downtown Public Investment, Enterprise Zone Tax Break, Multi-Unit Property Tax Exemption	Industry Cluster Reports	William Ellis Economic Development Analyst Amanda Nobel Flannery Loan Analyst	
University of Oregon	Education information (Connected Lane County), Tech Transfer performance measures, University of Oregon economic impact figures, Economic Performance Reports	Unknown, but business college likely has a multitude	Tim Duy, Professor of Economics; Lynn Stearney, UO Tech Transfer Research; Terri Ward, UO Center for Assessment Statistics and Evaluation	UO Tech Transfer, University Economic Statistics, and Office of Research Development have different information
Eugene Chamber of Commerce		Regional prosperity initiative performance information, number of contacts, meetings	Carrie Russo CarrieR@eugenechamber.com	
Oregon Employment Department	Employment Statistics, Trends		Brian Rooney, Regional Economist	
Business Oregon	Ready to develop sites in Lane County	Information regarding business recruitment	Sean Stevens, Regional Business Oregon Representative	Business location recruitment contacts
Oregon Department of Environmental Quality	ECSI (Environmental Cleanup Site Information Database), LUST (Leaking Underground Storage Tanks)	Commercial and Industrial Site History and Status Available through Project Managers	Mary Camarata, Western Oregon Region Representative	
Bureau of Labor Statistics	Federal employment data (totals, industry, wages, unemployment), location quotient calculator, consumer price index		Brian Rooney, Oregon Regional Economist	http://www.census.gov/econ/cbp/
Bureau of Economic Analysis	Gross Metropolitan Product, Productivity, Value by Sector, Area Personal Income, Input-Output and Multipliers			http://www.bea.gov/
Brookings Institute	Innovation performance by metro, manufacturing profiles by metro, Job Access and Transit, Skills and Education, Poverty		http://www.brookings.edu/about/projects/state-metro-innovation/experts	http://www.brookings.edu/about/projects/state-metro-innovation/resources
Cornell Internet Data Source for Social Scientists				http://www.ciser.cornell.edu/ASPs/datasource.asp See below.

Interesting links for the economic researcher selected from: http://www.ciser.cornell.edu/ASPs/datasource.asp
Attachment A to the Regional Data Catalog contains a comprehensive list of useful federal economic development datasets

Geographic Scope of Data

Although a frequent request is that economic data be split up for City of Eugene and City of Springfield, this would not reflect economic reality. The shared commuting distances of these two cities underscores a shared labor market. City specific information cannot be extracted from many datasets due to their spatial formats and/or comprehensive locational attributes. Average incomes and expenditures may be broken down to neighborhood scales, but wages and industry performance are best viewed and understood at a regional level.

Data Collection Frequency

The collection of Economy & Jobs data cannot be generalized. It varies widely from real time monitoring to inventories which occur sporadically and, in some cases, only once.

Data Accessibility

Most Economy & Jobs data access is free and open through federal and state websites, but expertise and advice is often needed to interpret information for local economies. Some data, like consumer purchasing information and market segmentation information is available commercially. Employment figures by firm and location are also available through LCOG, but under strict confidentiality parameters.

Data Category Overview: *Land Use / Built Environment*

Introduction to Land Use / Built Environment Data

Land Use / Built Environment data includes data related to the use of land and existing development on the land. It includes some data from other data categories as they relate to how land is utilized. Land Use / Built Environment data is collected and maintained at most geographies, but the majority of useful datasets are developed by city agencies or LCOG (for smaller cities and the county). The "Key" Datasets outlined below are a vetted list of datasets viewed as broadly applicable and utilized, of which many subsets of data could be developed (e.g. housing density). The Key Agencies for Land Use / Built Environment data listed below obtain and manage numerous datasets and some generate their own data. These key organizations do not necessarily have all datasets but are a useful starting place for obtaining data.

Key Data Sets/Access

• Comprehensive plan designation • Zoning	/LCOG /City of Eugene Planning & Development /City of Springfield Development & Public Works
• Property & improvements assessments	/Tax Assessor/RLID
• Aerial photography	/LCOG
• Land use code & structure type	/LCOG
• Buildable lands supply	/City of Eugene Planning & Development /City of Springfield Development & Public Works
• Building permits & land use approvals • Historical sites	/City of Eugene Planning & Development /City of Springfield Development & Public Works
• Housing	/US Census/Cities of Eugene, Springfield and Lane County/HACSA/United Way
• Building footprints/outlines • Impervious surface areas (Eugene only)	/City of Eugene Public Works Engineering /City of Springfield Development & Public Works
• Street network (public/private) & right-of-way	/City of Eugene Public Works Engineering /City of Springfield Development & Public Works
• Utilities (Water, Sewer, Electric, Telecomm)	/City of Eugene Public Works Engineering /City of Springfield Development & Public Works /Eugene Water & Electric Board/Springfield Utility Board/Emerald People's Utility District /Lane Electric/LCOG (BPA power lines, Fiber-Telecomm)
• Protected natural resource areas	/City of Eugene PW, Planning & Development /City of Springfield Development & Public Works /LCOG/Lane County
• Park sites/assets/infrastructure	/City of Eugene Public Works Engineering

Key Agency/Organizations

- Lane Council of Governments
- Lane County Public Works
- City of Eugene Public Works Engineering
- City of Eugene Planning and Development
- City of Springfield Development & Public Works
- Eugene Water and Electric Board
- Springfield Utility Board
- Lane County Tax Assessor

Key Data Uses

- Local Administration /Compliance with Statewide Planning Goals (Maps and Exhibits for Comprehensive Plan and Development and Zoning Ordinances, Goal 9 and 10 inventories)
- Long Range Planning (Buildable Lands Analysis, UGB Expansion analysis, park planning) & urban design
- Short Range Planning (land use applications)
- Research (Historical resource trends and forecasting)
- Support for the securing of grants and other funding resources

Key Committees/Consortiums/Forums for Data Coordination

- Regional GIS Partnership (regional and local agencies). Although addressed peripherally as well, there is a specific Land Use subcommittee in the RLID Organizational Concept. This group has, at this time, not been organized or convened.
- Envision Eugene technical review groups
- Housing Policy Board
- Local Planning Commissions
- Local Neighborhood Associations

Key Plans Related to Land Use / Built Environment Data

- Eugene-Springfield Metropolitan Plan
- Eugene-Springfield Metropolitan Area Residential Lands and Housing Study
- Metro Industrial Lands Inventory
- Eugene Commercial Lands Study
- Lane County Rural Comprehensive Plan
- Envision Eugene project (not adopted at this time)
- Springfield 2030 (not adopted at this time)

Key Data Formats

Land Use / Built Environment data is available in numerous formats. A significant number of datasets are available in GIS (spatial) format, which requires special software. Many primary data contacts can provide mapped materials or tabular extracts from GIS datasets (in excel, or other spreadsheet formats). Significant amounts of data also exist within studies and reports, or in the form of printed maps and imagery (including site and aerial photos).

Key Sources

Land Use / Built Environment is collected and maintained at most geographies, but the majority of useful datasets are developed by cities, key among these are the city of Eugene and Springfield, as well as by LCOG. Many agencies collect and monitor resource data for reporting or other purposes. The key data sets listed above can be queried individually as well as against other key data sets to report on general construction trends or to develop important subsets of data, such as development densities, housing/structure mix, floor to area ratio, average house size, year built, and housing costs.

Relationship of Data Lane Livability Consortium Focus Areas

Land Use / Built Environment, although not explicitly outlined as a key focus area of the Lane Livability Consortium, are key contributors to primary focus areas.

Geographic Scope of Data

Data regarding built development and permitting is available within the Metro Plan boundary, by each city or the county. Subsets of this data can also be provided according to smaller boundaries such as by neighborhood through additional queries. Location specific information regarding tax lot data can be extracted.

Data Collection Frequency

• Comprehensive plan designation • Zoning • Plat boundaries • Historical sites • Land use code/structure type • Building permits & land use approvals • Street network • Utilities	These databases are updated internally whenever a change occurs (or shortly thereafter). Public versions of these datasets may only be updated annually.
• Property & improvements assessments	These databases are updated at varying but regular intervals, annually or greater
• Aerial photography • Buildable lands supply • Building footprints/outlines • Impervious surface areas (Eugene only) • Park sites/assets/infrastructure	These databases are updated periodically as needed with no specific schedule for updating

Linkages and Connections with Other Plans and Agencies

Several other plans and agencies utilize Land Use / Built Environment data. Examples include:

- Neighborhood refinement plans
- Eugene-Springfield Housing Consolidated Plan
- Community Climate and Energy Action Plan for Eugene
- Parks, Recreation and Open Space Comprehensive Plan (Eugene)
- Parks and Recreation Comprehensive Plan (Springfield)
- TransPlan
- Utility provider plans

Data Accessibility

Parcel specific information about zoning, use and building permits/land use approvals is available through RLID. The adopted Metro Plan designation diagram (at 11" x 17") is available through RLID, LCOG, the cities and the county. It is not yet available in a parcel specific format in all jurisdictions.

Building permit & land use application data can also be provided in custom reports generated by the cities. Limited access is available on-line for City of Eugene building permits and land use applications through stock, on-line reports.

Most of these data sets are also available in a GIS format. Accessing the data can prove challenging to those who don't own the expensive software to view and manage it. Fees may be required.

Land Use / Built Environment: Key Data Sources Table

Key Data Sources	Data Sets	Contact	Notes
Lane Council of Governments	Comprehensive plan designation, Zoning, City limits & UGB, Aerial photography (image data), Land use code/structure type, building footprints (most cities), facilities, parks, site address Comprehensive plan designation, Zoning	Bill Clingman bclingman@lcog.org 541-682-4548	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County	Storm water Infrastructure, Dry wells, Pavement Management, Road Maintenance, Recycling sites, Land fill, BPA Transmission Lines Airports, Archaeological sites, Areas of Interest, Coastal Resource Management , Developed and Committed areas, Districts, Greenway, Historic Overlay, Measure 37 claims, Community Organizations, Zoning, Coastal Overlay, Regional Comprehensive Plan Designation & Zoning, Metro Plan Designation, Metro Goal 5 Area, Fire-wise	Melissa Crane Melissa.Crane@co.lane.or.us (541) 682-6950	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County Tax Assessor	Property & improvements assessments	Melissa Crane (Lane Co. GIS & Marketing Manager) Melissa.crane@co.lane.or.us 541-682-6950	
City of Eugene Planning and Dev.	Comprehensive plan designation, Zoning, City limits & UGB, Buildable lands supply, Historical sites Buildable lands supply In the future, the city anticipates producing reports monitoring growth and the quantitative and qualitative Envision Eugene strategies and actions Building permits Land use approvals	Doug Terra 541-682-6035 doug.m.terra@ci.eugene.or.us Debbie Wells (building permits) 541-682-6828 debbie.l.wells@ci.eugene.or.us Amy Janisch (land use approvals) 541-682-5699 amy.c.janisch@ci.eugene.or.us	
City of Springfield Dev. & Public Works	Comprehensive plan designation, Zoning, City limits & UGB, Tax lot boundary, Plat boundaries, Buildable lands supply, Historical sites, Building footprints, Impervious surfaces, Utilities Buildable lands supply Building permits & land use approvals	Chris Zeitner at 541-726-3706 or Mike Engelmann at 541-736-1016	
Eugene Water and Electric Board	Utilities (including water and electric lines)	Jeff Schenck (GIS Technical Lead) Jeffrey.Schenck@EWEB.ORG 541-685-7747	Information may be subject to non-disclosure agreements (the City and LCOG are probably already signatories, but likely not the other agencies)
Springfield Utility Board	Utilities (including water and electric lines)	Sanjeev King (Electric Engineering Manager) sanjeevk@subutil.com 541-736-2331	
Emerald People's Utility District	Utilities (including water and electric lines)	DeeAnn Nelson DEEANN@epud.org	
Lane Electric	Utilities	Deanna Caswell (GIS/CAD Technician) Deanna.Caswell@laneelectric.com 541-484-1151	

Data Category Overview: *Population and Demographics*

Introduction to Natural Population and Demographics Data

Demographics commonly include gender, age, ethnicity, language, disabilities, mobility, home ownership and employment status. This information is often used for marketing, targeting public services and to inform planning initiatives. The primary source for this data is the US Census and American Community Survey. The Census Bureau performs an inventory of every household every ten years to collect population information for a specific point in time. This has been required in the United States since 1790 as a means to determine amount of federal funding allocation to states. The American Community survey is an ongoing effort initiated in 2008 to gather demographic information based on sample respondents and statistical analysis. The resulting data from these efforts is primarily available from the federal government. GIS data includes Block, Block Group and Tract area delineations. Tabular data contains the results of the inventories that can be joined to the GIS data.

Key Data Sets/Access

• Aggregate census data and GIS-compatible boundary files for US between 1790 and 2012	/National Historical Geographic Information System
• American Community Survey: social economic, housing, demographic	/US Census Bureau
• Certified population estimates and population factors (age group quarters, etc.)	/Portland State University Population Research Center http://www.pdx.edu/prc/home
• County Coordinated Population Forecast	/Lane County
• Demographics, Lifestyles, Consumer, Business	/ESRI/UO Library
• Census Blocks, Groups, Tracts	US Census Bureau/Oregon Geospatial Enterprises/LCOG

Key Agency/Organizations

- US Census Bureau
- Oregon office of Economic Forecast
- Portland State University

Primary Data Contacts

- Lane Council of Governments
- City of Eugene Planning & Devel.
- Lane County GIS
- US Census Bureau
- American Fact Finder
- Oregon Geospatial Office

Key Data Uses

- Forecasting social needs
- Public opinion estimation
- Understand population for marketing purposes
- UGB planning

Key Committees/Consortiums/Forums for Data Coordination

- Housing Policy Board

Key Data Formats

Population and Demographic data is available as estimated summary information for US Census blocks and tracts. This data is available under the American Community Survey project at the US Bureau. The one major dataset is available in GIS (spatial) format. Primary data contacts can provide mapped materials or tabular extracts from GIS datasets (in excel, or other spreadsheet formats). Significant amounts of data also exist within studies and reports, or in the form of printed maps and imagery (including site and aerial photos).

Key Sources

Population and Demographic data is authored by the US Census Bureau. Other sources such as LCOG and Oregon Geospatial Enterprises provide the same data transformed into regionally relevant layers.

Relationship of Data Lane Livability Consortium Focus Areas

Population and Demographic data, although not explicitly outlined as a key focus area of the Lane Livability Consortium , are key contributors to primary focus areas.

Geographic Scope of Data

The granular scale of this data, from large area to small area is Tract, Block, Block Group in the United States. A block is a geographic unit where data was collected from all houses rather than a sample of houses. A block group is an aggregation of several block areas with interpolated data. A Tract boundary often coincides with city limits. They are used for looking at county scale analysis.

Data Collection Frequency

The collection of Population and Demographic data is collected comprehensively every ten years. 2010 was the last time this occurred. The American Community Survey is an ongoing sample, initiated in 2008. Statistical data is released from both processes.

Key Plans Related to Demographic & Population Data

- Eugene-Springfield Housing Consolidated Plan
- Eugene-Springfield Fair Housing Plan
- Eugene-Springfield Metropolitan Plan
- Eugene-Springfield Metropolitan Area Residential Lands and Housing Study
- Envision Eugene project (not adopted)
- Springfield 2030 (not adopted)

Data Accessibility

Population and Demographic GIS data are available in GIS format from basically one source: the US Census Bureau. The other agencies listed provide the same data, perhaps refined or targeted to a specific are or purpose.

Population and Demographics: Key Data Sources Table

Key Data Sources	Quantitative Data Sets	Contact	Notes
Lane Council of Governments	(1995 – 2010) block groups, blocks, tracts, population points	Bill Clingman bclingman@lcog.org 541-682-4548	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County	Coordinated Population Forecast (Coordinated population figures for each city in Lane County)	Melissa Crane Melissa.Crane@co.lane.or.us (541) 682-6950	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
City of Eugene Public Works			
City of Eugene Planning and Dev.			
City of Springfield Public Works			
Eugene Water and Electric Board			
Springfield Utility Board			
Lane Regional Air Protection Agency			
US Census Bureau	American Community Survey Data National Historical Geographic Information System(NHGIS) People, Jobs, Housing, Economic, Education	http://www.census.gov/acs/www/	
Oregon Geospatial Enterprises	Census Blocks, BlockGroups, Tracts (2010), Census 2000 data	http://www.oregon.gov/DAS/CIO/GEO/Pages/sdlibrary.aspx	

Data Category Overview: *Public Health*

Introduction to Public Health Data

Public Health data includes data related to population heath, including environmental health, vital statistics, chronic and infectious diseases, occupational and injury. It primarily tracks and describes information related to the causes, conditions, and scope of illness and injury locally, regionally, and nationally. The "Key" Datasets outlined below are a reviewed list of datasets viewed as broadly applicable and utilized. The Key Agencies for public health data listed below do not necessarily have all datasets but are a useful starting place for obtaining data.

Key Data Sets/Access

• Vital Statistics (Birth & Death)	/Oregon Health Authority
• Communicable Disease	/Lane County Public Health/OHA
• Occupational Illness & Injury	/Oregon Health Authority/Oregon OSHA
• Injury & Violence (Suicide, Violent Death, Accidents, Trauma)	/Oregon Health Authority
• Health Related Behaviors	/Oregon Health Authority
• Chronic Disease	/Lane County Public Health/OHA
• Drinking Water Quality	/Oregon Health Authority/Oregon DEQ
• Air Quality (Pollution Concentration)	/Lane Regional Air Protection Agency
• Access to Healthy Food	/LCOG (store locations); SNAP retailers
• Body Mass Index (BMI)	/County DMV data
• Census Demographic data	/Age and Median Income – US Census
• Tobacco Retail Outlets	/Lane County
• Alcohol Retail Outlets	/Lane County
• Firearm Sales Outlets	/Lane County

Key Agency/Organizations

- Lane County Public Health
- Lane County Behavioral Health
- Oregon Health Authority
- Oregon Occupational Safety & Health Division
- Oregon Department of Environmental Quality
- Oregon Department of Agriculture
- Lane Regional Air Pollution Authority Centers for Disease Control and Prevention (CDC)
- United Way of Lane County
- Substance Abuse & Mental Health Services Administration (SAMHSA)U.S. Environmental Protection Agency
- U.S. Department of Agriculture – Food Safety and Inspection Service
- U.S. Department of Health & Human Services (Food and Drug Administration, National Institutes of Health, Surgeon General and others)
- Oregon State University – College of Public Health & Human Sciences
- Oregon Health Sciences University
- Portland State University

Primary Data Contacts

- Lane County Health & Human Services
- Oregon Health Authority
- Oregon Department of Agriculture
- Oregon DEQ
- Oregon OSHA
- Lane Regional Air Protection Agency

Secondary Data Contacts

- Centers for Disease Control and Prevention (CDC)
- Substance Abuse & Mental Health Services Administration (SAMHSA)
- Federal EPA
- U.S.D.A. Food Safety and Inspection Service
- U.S. Department of Health & Human Services (Food and Drug Administration, National Institutes of Health, Surgeon General, etc.)
- Oregon State University – College of Public Health & Human Sciences
- Oregon Health Sciences University
- Portland State University

Key Data Uses

- Describe the spatial patterns of health and factors which hinder and promote health at the community level and countywide;
- Monitor and evaluate changes in health and social patterns over time;
- Identify potential inequities in health;
- Assess and model impacts of health policy;
- Target and prioritize limited resources to improve health outcomes and reduce inequities; and
- Guide decision making, planning and policy development to assure healthy, thriving communities.

Key Committees/Consortiums/Forums for Data Coordination

- Public Health Accreditation Board (PHAB)
- Lane County Mental Health Advisory, Local Alcohol and Drug Planning Committee
- Lane County Community Health Council

Key Plans Related to Public Health Data

- Lane County Community Health Assessment
- Lane County's Healthy Future: A Plan for Empowering Communities (also considered Lane County's "Community Health Improvement Plan"). This plan builds on the Assessment.
- Oregon's Healthy Future: A Plan for Empowering Communities (State "Health Improvement Plan")
- Lane County Public Health Authority Comprehensive Plan
- Healthy People 2020
- National Prevention Strategy: America's Plan for Better Health and Wellness
- HHS Action Plan to Reduce Racial and Ethnic Health Disparities
- National Stakeholder Strategy for Achieving Health Equity
- Ending the Tobacco Epidemic: A Tobacco Control Strategic Action Plan for the U.S. Department of Health & Human Services
- U.S. National Vaccine Plan

Key Data Formats

Public Health data is available in numerous formats. Some data is available in searchable databases that can be accessed online. Most require that special data request be made. When requests are made, most data is provided as Excel files, or flat, delimited files. Some data can be made available for statistical packages such as SPSS or SAS. Significant amounts of data also exist within studies and reports, charts, and other forms of aggregated data, some in the form of printed maps. Public Health data is collected and maintained most commonly for analysis at the county level geography. It can sometimes be made available for smaller geographies, but due to the often confidential and sensitive nature of the data sets, most data is not readily available for analysis below the county level.

Key Sources

The majority of useful datasets are developed by federal and state agencies, key among these Oregon Health Authority, the Centers for Disease Control and Prevention, and the Substance Abuse and Mental Health Administration. Lane County Public Health collects some localized data that can be made available in aggregate form. Health related data can also be found in nearly all other major data categories. Key among them are Equity and Empowerment, Natural Resources, and Public Safety.

Geographic Scope of Data

Public Health data is collected and maintained most commonly for analysis at the county level geography. It can sometimes be made available for smaller geographies, but due to the often confidential and sensitive nature of the data sets, most data is not readily available for analysis below the county level. Public Health data tend to be aggregated at high level geographies (State and County).

Data Collection Frequency

The collection of public health data varies widely from real time patient records and case management to surveys and assessments that occur annually or every few years. Some data is captured sporadically and, in some cases, only once.

Linkages and Connections with Other Plans and Agencies

Health related data can also be found in nearly all other major data categories. Key among them are Equity and Empowerment, Natural Resources, and Public Safety.

Data Accessibility

Many data sets can only be accessed in aggregate form. Much of public health data is confidential or sensitive and therefore not available without special data agreements or assistance from the providing agency, including personal health records and birth and death data.

Public Health: Key Data Sources Table

Key Data Sources	Quantitative Data Sets	Contact	Notes
Lane County	The WIC Information System Tracker (TWIST); Maternal and Child Health Nursing Database; LC Cares (Electronic Behavioral Health Records); Community Health Center Electronic Medical Records (NextGen); ServicePoint (Human Services Provider Tracking System); Tobacco Quitline Utilization; Communicable Disease Surveillance Data; restaurant, hotel, pool/spa, childcare Environmental Health Inspections Data;	Brian K. Johnson Brian.K.Johnson@co.lane.or..us 541.682.4008	Access to some data may have confidentiality-based limitations.
Oregon Health Authority	Adolescent Suicide Attempt Data System (ASADS); ALERT Immunization Information System; Behavioral Risk Factor Surveillance System (BRFSS); Oregon Healthy Teens Survey (OHT); Youth Risk Behavior Survey; Student Wellness Survey; Drinking Water Data; Hazardous Substances Incidence Surveillance; Oregon State Cancer Registry; Pregnancy Risk Assessment and Monitory System (PRAMS); Oregon Trauma Registry; Vital Statistics (Births & Deaths); Oregon Violent Death Reporting System; Acute & Communicable Disease Surveillance Data; The WIC Information System Tracker (TWIST); Emergency Room Surveillance System (ESSENCE); Oregon Hospital Discharge Index;	http://public.health.oregon.gov/DataStatistics/Pages/index.aspx	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Centers for Disease Control and Prevention – National Center for Health Statistics	National Health and Nutrition Examination Surveys (NHANES); National Health Care Surveys; National Health Interview Survey (NHIS); National Immunization Survey (NIS); National Survey of Family Growth; National Vital Statistics System (NVSS); Longitudinal Studies of Aging (LSOA); State and Local Area Integrated Telephone Survey (SLAITS); FoodNet	http://www.cdc.gov/nchs/	
U.S. Department of Health & Human Services	HRSA Data Warehouse; Medical Expenditure Panel Survey; Healthcare cost and utilization; National Survey on Drug Use and Health (NSDUH); Drug Abuse Warning Network (DAWN); Behavioral Health Services Information System (BHSIS); Treatment Episode Data Set (TEDS);	http://datawarehouse.hrsa.gov/ http://www.samhsa.gov/data/	
Oregon Occupational Safety and Health Division	Occupational Fatality and Accident Investigation; Occupational Illness and Injury	http://www.cbs.state.or.us/osha/standards/statistics.html	
Oregon Department of Environmental Quality	Air Quality Index; Enforcement Actions; Environmental Cleanup Site Information; Leaking Underground Storage Tank Cleanup sites; Pacific Northwest Water Quality Data Exchange; Wastewater Systems;	http://www.deq.state.or.us/news/databases.htm	
U.S. Environmental Protection Agency	Air quality; Chemical Safety and Pollution Prevention; Solid Waste; Water Quality	http://www.epa.gov/epahome/data.html	
U.S. Department of Agriculture – Food Safety and Inspection Service	Food Safety and Inspection Service (FSIS): Inspections and Enforcement Activity, Foodborne Illness Attribution	http://www.fsis.usda.gov/wps/portal/fsis/topics/data-collection-and-reports	

Data Category Overview: *Public Safety*

Introduction to Public Safety Data

Public Safety Data Category is characterized by boundaries, facility location, incident data and crime statistics. Most boundaries are maintained as GIS layer representations of district legal descriptions although not all (for example, PSAP boundaries). Facility locations are a subset of address points or of larger multipurpose groups of facility locations. Incident response data is collected by several overlapping agencies and distributed as statistics. The major groupings of public safety data are Law Enforcement, Fire/Emergency Response, Disaster Preparedness and 9-1-1 system. Agencies responsible for public safety include the following:

Law Enforcement:

- City, tribal and state police departments
- County sheriff
- Campus public safety offices

Fire/Emergency Response:

- Municipal fire and emergency medical services
- Rural fire districts
- Ambulance service districts
- State-established fire protection district fire patrols

Disaster Preparedness:

- Municipal, county and state emergency management departments

Higher education institutions, police, sheriff and Oregon State Police record incident responses and distribute statistical qualitative data.

Utilities and public works departments are often integral to emergency response, maintaining their own dispatchers and relevant data.

Some smaller communities contract with larger and/or neighboring agencies to provide public safety services. For example the City of Westfir contracts with the City of Oakridge for law enforcement and fire/EMS services, and the City of Creswell contracts with the Lane County Sheriff for law enforcement. Some public safety services, such as rural fire protection, are funded by property tax paid by land owners within the district. For this reason Assessment & Taxation is a valuable source of boundary descriptions and district revenue information.

Key Data Sets/Access

• Crime Incident Statistics	/Local Police/Sheriff, State websites
• Request Logs	/Local Police/Sheriff, State websites
• District Boundaries	/LCOG Districts/LaneCounty A&T Taxcode
• Facility Locations	/LCOG/Lane County/Cities
• Hazards	/Oregon Explorer/other local GIS Data
• Fire Incident Information	/Northwest Interagency Coordination Center
• University/College Incident Logs	/University/College web sites

• Emergency Evacuation Routes/Emergency Priority Streets	/Lane County Emergency Management/City of Eugene PW
• Transportation Hazards	/Oregon TripCheck/KeepUsMoving.info
• Sex Offenders	/Oregon Sex offender Inquiry system

Key Agency/Organizations

- City of Coburg Police Dept
- City of Cottage Grove City Police Dept
- City of Eugene Police Dept
- City of Florence City Police Dept
- City of Junction City Police Dept
- City of Oakridge City Police Dept
- City of Springfield Police Dept
- Lane County Sheriff's Office
- Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians Police Dept
- Oregon State Police
- University of Oregon Police Department
- Lane Community College Public Safety Department
- Central Lane Communications Center Public Safety Answering Point (PSAP)
- South Lane PSAP
- West Lane PSAP
- Eugene Springfield Fire
- Western Lane Ambulance
- County rural fire districts
- Lane County Fire Defense Board
- State Fire Marshal
- West Lane Emergency Operations Group
- City of Eugene Emergency Mgmt
- City of Springfield Emergency Mgmt
- University of Oregon Department of Emergency Management and & Continuity Program
- Lane County Emergency Mgmt
- Oregon Office of Emergency Management
- Oregon Partnership for Disaster Resilence
- Oregon Department of Forestry
- Oregon Department of Transportation
- Oregon Department of Public Safety Standards and Training
- Federal Emergency Management Act (FEMA)
- U.S. Army Corps of Engineers
- National Weather Service (NOAA)
- National Flood Insurance Program

Key Data Uses

- Emergency/Disaster Management
- Fire/Rescue and EMS
- Homeland/National Security
- Law Enforcement

Key Committees/Consortiums/Forums for Data Coordination

- LCOG Public Safety Coordinating Council
- Lane County Hazard Mitigation Steering Committee
- Central Lane Communications Center, West Lane and South Lane PSAP User Boards
- Lane Preparedness Coalition
- Lane Emergency Planning Committee
- Community Emergency Notification Systems Partners

Key Plans Related to Public Safety

- Oregon Department of Public Safety Standards and Training Strategic Plan
- Lane County Emergency Management Publications
- Lane County Regional Communications Interoperability Plan
- Eugene/Springfield Natural Hazards Mitigation Plan
- Pre-plans developed for Community Emergency Notification (for example, Tsunami inundation zone and urban-wildland interface mapping)

Key Data Formats

Maps, statistics, reports

Key Sources

- Criminal Justice System Report Card Data Book, http://www.lcog.org/documents/pscc/2011_DataBook.pdf
- Criminal Justice System Report Card, http://www.lcog.org/documents/pscc/ReportCards2011.pdf
- Public Safety answering Point Boundaries State GIS site
- Static Crime Maps from Springfield Police
- http://www.lanecounty.org/Departments/Sheriff/Office/Emermgmt/Pages/default.aspx
- Eugene Emergency Management: http://www.eugene-or.gov/index.aspx?nid=255
- Eugene Police: http://www.eugene-or.gov/index.aspx?NID=162
- Central Lane Communications Center: http://www.eugene-or.gov/index.aspx?NID=993
- Springfield Police Department: http://www.springfield-or.gov/dept_pol.htm
- Springfield Emergency Management: http://www.ci.springfield.or.us/dpw/EmergencyManagement.htm
- Eugene-Springfield graffiti reporting database (http://graffiti.lcogweb.org)
- Oregon Emergency Management: http://www.oregon.gov/OMD/OEM/Pages/index.aspx
- National Fire Protection Association: http://www.nfpa.org/
- Oregon Water/Wastewater Agency Response Network: http://www.orwarn.org/

Relationship of Data Lane Livability Consortium Focus Areas

Public Safety, although not explicitly outlined as a key focus area of the Lane Livability Consortium, are key contributors to primary focus areas.

Geographic Scope of Data

The geographic scale of public safety data comes from an array of sources and formats. There appears to be little overlap of jurisdictional boundaries. Additionally, the agencies appear to handle their data separate from each other, making it difficult to do cross agency analysis.

Data Collection Frequency

Public Safety data, and in particular, those data that support emergency response are very high priority within any community and often regulated by state statute and administrative rules. Advances in communications and computing technology have, and will continue to have, immense impacts on the data necessary to undertake very diverse public safety operations.

Data Accessibility

Since most public safety data are not routinely stored and made available in GIS format, accessing the data can prove challenging to assemble. Future public safety operations will include GIS data as the underpinnings of call taking and dispatching for 9-1-1 centers as well as first responders in the field.

Public Safety: Key Data Sources Table

Key Data Sources	Quantitative Data Sets	Contact	Notes
Lane Council of Governments	GIS: Fire Districts, Ambulance Service Areas, Fire Protection Area. Airport Hazard Area, City Limits, Address, Flood Hazard, Seismic, Tsunami line, EMS Boat Launch, ESEB Hydrants, gasline, BPA_Trans Lines, PSAP Grid, Occupy EMS calls, Police Beats, Road barriers, Snow Routes, Water Source, White Hydrants MAPS: …	Bill Clingman bclingman@lcog.org 541-682-4548	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County	Ambulance, Campgrounds, Child Care, Correctional Facilities, Dams, elderly/Disabled Care, Fairgrounds, Hazardous Substances, Medical Facilities, Police Stations, Public Schools, Railroad Bridges & Tunnels, Red Cross Shelters, Residential Treatment Centers, Towers, Other Facilities Ambulance Service Districts, BLM Districts, City Limits, Commissioner Districts, DEQ Regions, Fire Districts, HazMat Team Boundaries, ODFW Boundaries, ODOT Highway Districts, PSAP Boundaries, Tsunami Line, USCG/EPA Jurisdiction Boundary, USFS Boundary, Utility Service Areas, Lane Transit District, ODOT cameras, Bridges, Crashes, Gates, Milepost, Railroad Crossings, Signs, Traffic Signals, Traffic Volume, Guard rails Flood Hazard	Melissa Crane Melissa.Crane@co.lane.or.us (541) 682-6950 Linda Cook: Lane County emergency Management Linda.cook@co.lane.or.us (541)682-6744	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
City of Eugene Public Works	Water Quality, Slope greater than 10%, Flood water contours, Section and Course, Shelters, Drinking fountains	Mike Miller (GIS Analyst, Supervisor) (541) 682-5248	
City of Eugene Police Dept.	Crime Incident Statistics	http://www.eugene-or.gov/index.aspx?NID=542	
City of Springfield Police Dept.	Crime Incident Statistics	http://www.ci.springfield.or.us/Police/statistics.html	
Oregon Geospatial Data	Emergency Operation Centers, Fire Stations, Hospitals, Public Health Departments, Law Enforcement, Public Safety Answering Point Boundaries, Communities at risk data(2005)	http://www.oregon.gov/DAS/CIO/GEO/pages/alphalist.aspx	
Springfield Utility Board			
Lane Regional Air Protection Agency	Air Quality	http://lrapa.org/	
Oregon Sex Offender Inquiry System	Map of registered residences	http://sexoffenders.oregon.gov/	
Oregon Department of Transportation		http://Tripcheck.com	
US federal Department of Education		http://ope.ed.gov/security/	

Data Category Overview: *Transportation*

Introduction to Transportation

Transportation analysis involves data which would not generally be considered as exclusively "Transportation" data. For example, property, boundary, land use and zoning information are critical for transportation planning. This summary report focuses on the data which are generally judged to be uniquely "transportation" in nature.

Transportation planning information and data primarily includes data related to facilities (e.g. road centerlines, bus stops and routes, crosswalks, facility speed limits, etc.) and behavior (e.g. mode choice, transit ridership, vehicle miles traveled, traffic counts and accident counts). Transportation data is collected at almost every geography (federal, state, county, city). The majority of useful datasets are developed by federal, state, and local agencies. Federal datasets are collected on a more frequent basis and enable comparisons and analysis of trends. The primary data contacts for transportation data listed within this summary obtain and manage numerous datasets from the state and federal agencies. These primary contacts do not necessarily have all datasets but are a useful starting place for tracking down data.

Additional transportation-related data includes road intersections and road milepoints. These features are also geographic identifiers for other road related data such as crash data, culverts, ditches, guardrails and more. Bridge location data is gathered and maintained by the various public works agencies in Lane County.

Key Data Sets/Access

• Census data –car ownership, journey to work data	/US Census/LCOG
• Transit schedules and routes; stop locations; station locations; fares; group passes issued	/LTD/Point2Point
• Transit service trends; boarding by stop; boarding trends	/LTD
• Travel networks – bike lanes/paths, pedestrian sidewalks, wayfinding signs, auto roads by functional class, lanes, posted speed, freight restrictions.	/City of Eugene/City of Springfield/LCOG
• Counts – vehicle/bike counts over 24 hours, over time.	/LCOG/City of Eugene/City of Springfield?
• Household and person surveys of travel behavior	ODOT/LTD/LCOG/UO/LCC
• Costs for parking, vehicle fuel, other vehicle operation.	/US Census/City of Eugene/City of Springfield/LTD
• Traffic volumes for current and future years (forecast)	/LCOG
• Transportation projects planned and underway – all travel modes, by agency, funding, start-end dates	/LCOG/ODOT/City of Eugene/City of Springfield/Lane County/LTD
• Road Intersections	/Lane County/LCOG
• Mile Points	/Lane County/LCOG
• Bridges	/Lane County/Springfield/Eugene

Key Agency/Organizations

- Central Lane Metropolitan Planning Organization (MPO) (Housed by the Lane Council of Governments)
- Lane Transit District
- Lane County
- City of Eugene Public Works
- City of Springfield Public Works
- City of Coburg
- Eugene Airport
- Lane Regional Air Pollution Authority
- Oregon Department of Transportation
- Oregon Department of Land Conservation and Development
- Federal Highway Administration
- Federal Transit Agency
- US Department of Transportation

Key Committees or Groups

- Eugene City Council
- Springfield City Council
- Lane County Commission
- LTD Board
- Metropolitan Policy Committee (MPC), (est. local transportation priorities)
- Oregon Transportation Commission (est. state transportation priorities)
- MPO Citizen Advisory Committee
- MPO Transportation Planning Committee
- Lane Area Commission on Transportation (ACT)
- City of Eugene Planning Commission
- City of Springfield Planning Commission
- City of Eugene Bicycle Pedestrian Advisory Committee
- City of Springfield Bicycle Pedestrian Advisory Committee
- keepusmoving.info
- University of Oregon

Primary Data Contacts

- Central Lane Metropolitan Planning Organization (MPO) (Housed by the Lane Council of Governments)
- Lane Transit District
- Lane County
- City of Springfield Public Works
- City of Eugene Public Works
- Oregon Department of Transportation

Secondary Data Contacts

- City of Coburg
- Point2Point
- Eugene Airport
- Lane Regional Air Pollution Authority
- Federal Highway Administration
- Federal Transit Agency
- US Department of Transportation
- Oregon Department of Land Conservation and Development

Key Data Uses

- Transportation data applications vary widely
- Transportation data supports the planning work of regional transportation planning agencies including the Central Lane MPO, which serves as a forum for cooperative transportation decision making for the Eugene-Springfield metropolitan area (including Coburg). Data supports the MPO ‘s key mission of:
    - Establishing fair and impartial decision making
    - Evaluate transportation alternatives
    - Maintaining a 20-year plan
    - Prioritizing projects
    - Involving the public.
- Transportation data is used to support the day to day operations of planning and public works divisions in the region, including service delivery analysis for LTD and ongoing maintenance and traffic safety efforts for all the jurisdictions.

Key Plans Related to Transportation Data

- TransPlan (2002)
- Central Lane MPO Regional Transportation Plan (2007)
- MPO Public Involvement Plan
- MPO Unified Planning Work Program (UPWP)
- MPO Metropolitan Transportation Improvement Program (MTIP)
- Lane County Transportation System Plan (2004)
- City of Coburg Transportation System Plan (adopted 2013)
- City of Eugene Transportation System Plan
- City of Springfield Transportation System Plan
- Eugene Bicycle & Pedestrian Master Plan
- Springfield Bicycle Plan
- Oregon Highway Plan
- Oregon Transportation Plan
- Lane Coordinated Public Transit Human Services Transportation Plan
- Regional Transportation Options Plan (not yet completed)
- Lane Transit District's Long-Range Transit Plan (to be adopted Spring 2014)

Key Data Formats

Transportation data is found in numerous formats. A significant number of datasets are available in GIS (spatial) format, which may require special software and/or licenses. Many primary data contacts can provide mapped materials or tabular extracts from GIS datasets (in excel, or other spreadsheet formats). Significant amounts of data also exist within studies and reports, or in the form of printed maps.

Key Sources

Transportation data is collected and maintained at most geographies, but the majority of useful datasets are developed and maintained by local and state agencies. Many agencies collect and monitor data for reporting, analysis, and planning purposes. Key among these sources are LCOG, LTD, City of Eugene, City of Springfield, and ODOT.

Geographic Scope of Data

The geographic scale of transportation data cannot be typified. It varies widely from federal datasets to site specific information.

Data Collection Frequency

The collection of transportation data cannot be generalized. It varies widely from real time monitoring to inventories which occur sporadically.

Linkages and Connections with Other Plans and Agencies

- Eugene-Springfield Metropolitan Plan
- Envision Eugene
- Springfield 2030
- Scenario Planning Project

Data Accessibility

Since a lot of transportation data are available in GIS format, accessing the data can prove challenging to those who don't own the relatively expensive software. Additionally, analytically skilled staff are necessary to pull together the data needed to fully access issues.

Transportation: Key Data Sources Table

Key Data Sources	Quantitative Data Sets	Contact	Notes
Lane Council of Governments (Central Lane MPO)	Census data –car ownership, journey to work data, Travel networks – bike lanes/paths, pedestrian sidewalks, auto roads by functional class, lanes, posted speed, freight restrictions, Counts – vehicle/bike counts over 24 hours, over time, Costs for parking, vehicle fuel, other vehicle operation, Traffic volumes for current and future years (forecast), Household and person surveys of travel behavior, Transportation projects planned and underway – all travel modes, by agency, funding, start-end dates	Susan Payne spayne@lcog.org 541-682-7435	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane County	Road Centerline, Road right-of-way, Road name Annotation, Road Jurisdiction & Maintenance Boundaries, Railroads, Bridges, Crashes, Gates, Intersections, Mileposts, Signs, Traffic Signals, Traffic Counts, Bike Lanes, Driveways, Guardrails, Functional Class, Jurisdiction, Pavement Management, Surrendered Roads, Scenic Byway, Snow Priority, Vegetation Management	Melissa Crane Melissa.Crane@co.lane.or.us (541) 682-6950	Access to some data may have confidentiality-based limitations. Data requests may require cost recovery.
Lane Transit District	Transit schedules and routes; stop locations; station locations; fares; group passes issued		
City of Eugene Public Works			
City of Springfield Public Works			
University of Oregon			

Attachment A
Federal Economic Development Dataset Links

Resources for Economists on the Internet
Lists over 1,000 resources. Sponsored by the American Economic Association.

American Community Survey
Conducted by the U.S. Census Bureau to replace the decennial Census long form. When fully implemented, the ACSwill provide more current demographic, econmic, and housing characteristics for geographic levels comparable to the decennial Census. Tables and maps can be generated from the American Factfinder site http://factfinder.census.gov
Summary and public use microdata products are available, although it will be several years before tract and block group summary statistics are published. Statistics for areas with population over 65K were released in 2006, those with populations over 20K will be released in 2008.

American Factfinder
A gateway or portal to several major US Census products: 1990 and 2000 decennial Census of population and housing; annual population estimates; 1997 and 2002 Economic Census; American Community Survey. Retrieve summary tables and maps for display and download, although American Factfinder features are more robust for recent data products than older ones.

American Time Use Survey
Household survey begun in 2003 on how Americans use of personal, work, and leisure time. Summary tables and microdata can be downloaded. Conducted by Census Bureau on behalf of Bureau of Labor Statistics. Site contains links to similar time use studies conducted in other countries.You can also create custom extracts from the surveys via the ATUS Data Extract Builder (ATUS-X), a joint project of the Maryland and Minnesota population centers:
http://www.atusdata.org

Comtrade
Annual bilateral trade statistics by commodity and partner country. Most coverage back to 1962. Download custom extracts, create graphs. Powerful but not intuitive. Also known as UN Commodity Trade Statistics Database.

Consumer Expenditure Survey *homepage for Consumer Expenditure Survey*
Surveys the buying habits and expenditures of households. Conducted by the Census Bureau on behalf of the Bureau of Labor Statistics. Data are collected by a quarterly interview survey and weekly diary survey (mutually exclusive samples). Many summary tables are produced (by year, limited geographic areas, household characteristics), and you can create custom tables on the site.

Consumer Price Index (CPI)
Compiled by the US Bureau of Labor Statistics. A statistical measure of the average change in prices paid by urban consumers for goods and services, widely used as a meausre of inflation. The core CPI exludes food and energy categories.

County Business Patterns *homepage for County Business Patterns*
Download raw data files back to 1988 from this Census Bureau site. Older data files are available in the Data Archive and from ICPSR. Recent years can be viewed as tables online.

data downloads
Download data and documentation for the basic survey (1998+), March supplement (1998+), and selected supplements from this Census site. Older CPS datasets are available in the Data Archive, from ICPSR, and from NBER.

National Bureau of Economic Research
Downloads for basic monthly files (1976+), most supplements (March back to 1962), some matched research files, and documentation and many input programs (SAS, SPSS, Stata).

Diversitydata.org: Metropolitan Quality of Life Data
Compiles indicators to define quality of life in U.S. metropolitan areas, with a focus on measures affecting diversity, economic opportunity, and social wellbeing, broken down by race/ethnicity. Much summary data are derived from decennial Censues, but other measures (for example, access to health insurance, characteristics of local school systems, residential sprawl, housing affordability) are derived from other government and private sources. Many variables limited to the largest metro areas, and there is no ability to extract and download tables. Maps feature is limited. Compiled under the aupices of the Harvard School of Public Health.

Economic Report of the President
Links to reports since 1995. Statistical tables contain extensive macroeconomic historical data.

Federal Funds for Research and Development
Support provided by federal agencies fiscal years 1951+ . Summary tables by agency and category of recipient in PDF and Excel formats.

Global Market Information Database
Demographic, econmic, environmental, and marketing data for over 200 countries, some variables at the sub-national level. Detailed income, expenditure, and lifestyle statistics. Annual historical data and forecasts.

Healthcare Cost and Utilization Project (HCUP))
A suite of data products that measures hospital patient care, covering care quality, access, an outcomes, among other public policy topics. State- and national-level databases, compiled by the Agency for Healthcare Research and Quality. Includes H-CPUnet, an online tool designed to generate statistics.

Historical Census Data Browser
Generate tables for states and counties using data from 1790 to 1960. Limited mapping feature. Hosted by the Geospatial and Statistical Data Center, University of Virginia.

Historical statistics of the United States
Vital statistics, economics and employment, government, from the earliest figures available to the present. Select tables for viewing, e-mail, or download in a variety of formats. Some features, such as creation of custom tables and saving data, require individual registration in addition to Cornell authentication.

Linking Economic Development and Child Care: 50 State Database
Compiles variables from a wide variety of data sources on child care at the state level. Addresses factors affecting availabilty and quality of child care.
Local Area Unemployment Statistics
Monthly estimates of total employment and unemployment for states, metro- and micropolitan areas, counties, larger cities and towns. Data are frequently subject to revision.
National Longitudinal Surveys
NLS homepage
Sponsored by the US Bureau of Labor Statistics, its intent is to collect data on labor market experiences of individuals over time. However, the NLS datasets are used in a wide variety of research areas: the affects of life events, health status and behaviors, fertility, education, workforce experiences and expectations. Several data extraction and download options for all NLS cohorts (original cohort groups begun in 1968, NLSY79, NLSY79 Children/Young Adults, NLSY97).
NLS Database Investigator
Software required to utilize NLS data if you download the entire dataset for a cohort. Requires Windows OS.
Occupational Employment Statistics
Links to national, state, and metropolitan area occuaptional and wage estimates for recent years. From BLS. Based on a semi-annual survey of nonfarm establishments, and does not include self-employed individuals.
Panel Study of Income Dynamics
Download the raw data and documentation for all waves or use the Data Center browse and extract function to select variables.
School District Demographics
Extracts from 1990 and 2000 Census data in school district boundaries. Limited download capabilities.
Scientists and Engineers Statistical Data System (SESTAT)
Distributes data from the National Survey of College Graduates (NSCG), Survey of Earned Doctorates, and other surveys measuring characteristics of the American technical labor force. From the National Science Foundation.
Small Area Income and Poverty Estimates
Estimates on number of families and children living in poverty, median household incomes. Most estimates are available for states, counties, and school districts. Produced by the U.S. Census Bureau. Estimates are generally 3 years behind.
State and Local Area Personal Income
State, county, and MSA personal income, including per capita income back to 1969. Produced by the Bureau of Economic Analysis.
State Failure: Internal Wars and Failures of Governance
Codes events in countries with populations of over 500,000 since 1955. Includes the following types of events: ethnic war, revolutionary war, adverse regime change, genocide/politicide.
State Health Facts
State comparisons of health status, poverty, insurance coverage, topics in minority and women's health, HIV/AIDS, care costs, and Medicare/Medicade issues. Most data for the current year only. Most series can be downloaded as delimited ascii files.
State of the Cities Data Systems
Compiles information on popualtion, housing, crime, housing, employment, economic activity for metro areas, central cities, and their suburbs. Most statistics from 1990+, Census tables back to 1970.
Survey of Consumer Finances
Conducted every three years for the Federal Reserve Board . Measures wealth and income of American households.
Survey of Economic Expectations
A national survey on how Americans view their short-term economic future. Conducted in 8 waves from 1994 to 1998. Data can be downloaded (registration required) in Stata and ascii formats. Codebook includes variable-level frequencies.
Survey of Income and Program Participation (SIPP)
A longitudinal panel study conducted by the U.S. Census Bureau to measure income, participation in government programs. Follows changes in income within a household and events that influence economic participation, access to benefits, and social wellbeing. In addition to a "core" survey of income and labor participation questions , additional topical modules cover a wide range of topics such as child care, retirement savings, and utilization of health care services. SIPP data constitute a rich source but can be complicated to use. The tutorial (linked from the homepage) provides an excellent introduction to the content and structure of the survey.
Surveys of Consumers
Begun in 1946, the monthly surveys measure sentiment regarding personal financial well being and that of the country. The Surveys are also used to generate the Index of Consumer Expectations. Microdata from the most recent six months are embargoed. A University of Michigan site provides customized subsets and tables using the SDA utility: http://www.sca.isr.umich.edu/sda-public/ (ICPSR houses older years under the series title, Survey of Consumer Attitudes and Behavior.) Conducted by the Survey Research Center, University of Michigan, with support from Reuters http://thomsonreuters.com/products_services/financial/financial_products/a-z/umichigan_surveys_of_consumers/ .
Union Density Estimates by State, 1964-2005
Annual estimates of public and private sector membership from 1973 to date based on the Current Population Survey. State and national data back to 1963 are based on the CPS and the Directory of National Unions and Employee Associations. Compiled by Barry Hirsch and David Macpherson.
Union Membership and Coverage Database
Compiled from the Current Population Survey. National, state, and metro area estimates. Updated annually.
USA Counties *homepage for USA Counties*
Online access permits viewing one state/county/table at a time and comparison of the data for a table with other counties in a state.

Wage Determinations OnLine.gov
Current hour wage and fringe benefits rates for federally funded construction projects. Search or browse by state and county.
Wisconsin Longitudinal Study
A study of over 10,000 Wisconsin residents who graduated from high school in 1957, with two separate surveys of their sibliings and spouses. The newest wave of data was collected in in 2005, released in late 2006. Download complete datasets with programs or create a custom subset; both require user registration.
World Income Inequality Database
Indicators measuring inequality (including but not limited to Gini coefficients) in over 150 countries, including those with transitional and developing economies.

Data Distributors and Producers: U.S. Government

Department of Agriculture

Census of Agriculture
The 2002 Census of Agriculture function from this site permits selection and download (as comma-delimited files) of multiple geographies and tables for both 2002 and 1997 surveys. Older years are limited to PDF versions of published tables. The AgCensus site http://agcensus.mannlib.cornell.edu provides tables for 1987, 1992, and 1997 at county, state, and ZIP geographies. Output is limited to one location at a time in html table format.
Economic Research Service
National Agriculture Statistics Service
Agricultural statistics at the state, county, ZIP code, and Congressional district levels. Reports, statistical tables, and some mapping features based on recent Census of Agriculture results and other surveys.
USDA Economics and Statistics System
Data and statisical reports generated from the Agricultural Marketing Service, (AMS) National Agricultural Statistics Service (NASS), World Agricultural Outlook Board, and the Economic Research Service (ERS). Substantial historical coverage of crops, agricultural management, trade and markets, and some environment and land-use topics. E-mail announcement service also available for selected reports.

Department of Commerce

Bureau of Economic Analysis
This link goes directly to the BEA Catalog of Products, from which you can download many national and regional economic series. Of special interest to researchers, the site archives previously published estimates that underwent subsequent revision. There is also some international data, and the site has limited mapping abilities.
In addition to data downloads, you can use an interactive feature to create tables from selected series, some back to the 1940s. Among these are the national income and products accounts (NIPA) http://www.bea.gov/national/ , regional economic accounts (also known as REIS) http://www.bea.gov/regional/ , and input-output accounts

Censtats
A gateway to some of the most popular Census products, such as County Business Patterns, tract locator, and USA Counties.
Office of Travel and Tourism Industries
Data on travel by US nationals and incoming visitors. Some detailed marketing data is sold, but the site also provides very detailed, historical statistics on travel.
STAT-USA

Department of Education

National Center for Education Statistics
The site distributes a broad range of published reports and data on all levels of education, including state and local financing and governance, student performance and well-being, as well as trends and projections. Its Data Resource Center permits drill-down to specific tablels and charts produced by NCES. Fast Response Survey System http://nces.ed.gov/surveys/frss/ permits dataset downloads for the most recent and popular public-use files. The NCES site also supplies information about its restricted-use datasets.
State Education Reforms
Part of the National Center for Education Statistics site but provides data collected outside of NCES. Focuses on student assessment, school finances, school choice (public, charter, private, home schooling), and classroom practices. Most "data tables" go back only a few years.

Department of Labor

Bureau of Labor Statistics
The ultimate source of US data on employment, prices, working conditions, and productivity. Includes a considerable number of historical time series and a highly selective list of series from other countries. The site's most recent redesign (2008)

incoporates tutorials, data retrieval and mapping tools, and really cool calculators for comparing inflation and occupational injuries. For those who know the data and what they're looking for, see the list at http://www.bls.gov/data/home.htm
Safety and Health Statistics

Department of the Treasury

Internal Revenue Service: Tax Stats

Online Reference Tools

Standard Industry Classifications
Links to classifications systems such as NAICS 1997 and 2002, SIC, ISIC, and their revisions.

EconData.Net
Focus is on links to U.S. regional economic information. Most represent federal statistical agencies but state and local government, as well as university and private sites, are also indexed. Contents are not searchable; use the categories by broad subject areas, provider, or type of product (microdata, compendia, and so forth).

Economagic
Good source for locating economic time series, but it helps to know precisely what series you need or who produces it. Most are from U.S statistical agencies and Federal Reserve offices, a few from Asia and Eurean sources. Not fancy but contains some hidden gems such as historical stock data, innumerable interest rate series, and other indicators of national economic activity.

Economic Policy Institute
Focus on economic indicators related to poverty and low-income workers: miniumum wage, family budgets, unemployment insurance, pension income, Datazone contains historical national and state times series related to labor and employment.

Lane Livability Consortium Data Questionnaire

Welcome to the Lane Livability Consortium (LLC) Data Survey. The Lane Livability Consortium was founded in 2010 to bring together regional leaders in economic development, higher education, transportation, affordable housing, water and energy, and social equity to build upon the Eugene-Springfield region's successes and to further integrate livability into our plans and strategies.To learn more about the Lane Livability Consortium and its mission visit www.livabilitylane.org.

The goal of this survey is to begin to identify critical data gaps and/or changing needs for data to support your work. When we use the term "data" in this survey, we have intended for you to think broadly about information in various forms, including qualitative and quantitative data, geospatial data, area or parcel specific data, etc. Your feedback, and that of others, will be incorporated into a regional data "action" plan.

This survey is directed at representatives from local, regional, and county government agencies, nonprofits, and other institutions working on housing, economic development, transportation, community health, and equity issues in our region. Please fill the survey out from YOUR INDIVIDUAL (OR WORK GROUP) perspective, unless asked to do otherwise.

The survey will take about 10 minutes to complete.

Please answer all survey questions to the best of your ability.

Thank you for your assistance!

Lane Livability Consortium Data Questionnaire

General Background

Please complete the following general background questions.

1. Which type/category best describes your organization? (please check one)

- ◯ Local Municipal Agency
- ◯ Regional Agency
- ◯ County Agency
- ◯ State Agency
- ◯ Private Non-Profit
- ◯ Private For Profit

Other (please specify)

2. If you work for a local or regional agency, please tell us which agency you work for.

Lane Livability Consortium Data Questionnaire

3. Which category best describes your work within your organization? (please check all that apply)

- [ ] Elected Official
- [ ] Board Member
- [ ] General Management
- [ ] Arts, Design, Entertainment, Sports, and Media
- [ ] Economic Development, Business and Finance
- [ ] Education, Training, and Library
- [ ] Energy Management & Sustainability
- [ ] Environmental Protection, Monitoring & Regulation
- [ ] GIS
- [ ] Health & Human Services
- [ ] Housing
- [ ] Infrastructure Planning, Construction & Operation (e.g. transportation and utilities)
- [ ] Land Use Planning
- [ ] Law Enforcement, Criminal Justice, Incarceration & Rehabilitation
- [ ] Legislative Affairs & Grants
- [ ] Natural Resource Conservation, Management & Risk Assessment
- [ ] Office and Administrative Support
- [ ] Open Space and Recreation Planning or Programs

Other (please specify)

4. Tell us a little bit more about how you gather or access data (please check all that apply).

- [ ] I use the results from previously completed data analysis
- [ ] I use existing maps and aggregate data to inform my own analysis
- [ ] I develop maps and aggregate figures from existing raw data
- [ ] I collect primary data (e.g. surveys, studies, field work, etc.)
- [ ] None of the above

Other (please specify)

5. How do you use or analyze data in your work?

	Rarely	Occasionally	Frequently	N/A
To understand current conditions.	◯	◯	◯	◯
To identify trends or patterns that may affect your work.	◯	◯	◯	◯
To identify service delivery areas	◯	◯	◯	◯
To estimate future needs.	◯	◯	◯	◯
To identify unmet needs and potential gaps in service.	◯	◯	◯	◯
To inform the public.	◯	◯	◯	◯
To drive individual and community change (e.g. individualized marketing, etc).	◯	◯	◯	◯
To influence policy choices.	◯	◯	◯	◯
To evaluate the effectiveness of programs and/or services.	◯	◯	◯	◯
To apply for grants and other funding.	◯	◯	◯	◯
To report to state and federal agencies.	◯	◯	◯	◯

Other (please specify)

Lane Livability Consortium Data Questionnaire

Data You Access Currently

In this section, we would like to get a better understanding of the types of data that are most relevant and important to your work, and which you CURRENTLY HAVE ACCESS TO.

6. Please rate the level of importance of data that you currently have access to and USE in your work as High, Medium or Low. (Data types that you provide no response for will indicate that you don't notably access or use such data)

	Ranking
Overall Demographic & Population	
Specific Demographic Groups (examples:Youth, Senior, Racial Minority)	
Environmental	
Resource Management	
Infrastructure & Utilities	
Risk/Emergency Management	
Climate Change/Energy	
Transportation	
Land Use	
Economic	
Parks, Open Space	
Government Operations/Administration	
Education/Outreach	
Taxation & Assessment/Property Information	
Public Safety	
Public Health	
Tourism	
Arts & Culture	
Social Equity & Environmental Justice	
Human Services	
Housing	
Human Capital	

7. How frequently does the most important data you use need to be gathered and analyzed for it to be relevant to your work?

	5-10 Years	2-5 Years	Yearly	Semiannual	Monthly	Weekly	Daily	Real Time
Frequency	◯	◯	◯	◯	◯	◯	◯	◯

8. What geographic scale is most useful or appropriate for the most important data you use?

	Metro region	City	Neighborhood or business district	Census geography (e.g. tract, block group, block, etc.)	Legislative district
Geographic Scale	◯	◯	◯	◯	◯

Other (please specify)

9. Please describe any specific challenges you have faced related to the data identified in Question 6. Limit 100 characters.

Lane Livability Consortium Data Questionnaire

Data You Wish You Could Access

In the next section of the survey we would like to learn more about the types of data that are relevant to your work BUT REPRESENT CURRENT DATA GAPS OR CHALLENGES.

10. Please rate the level of importance of data that you WISH you had access or improved access to as High, Medium or Low. (Data types that you provide no response for will be an indication that you don't have notable access issues, or access desires for such data).

	Ranking
Overall Demographic & Population	
Specific Demographic Groups (examples:Youth, Senior, Racial Minority)	
Environmental	
Resource Management	
Infrastructure & Utilities	
Risk/Emergency Management	
Climate Change/Energy	
Transportation	
Land Use	
Economic	
Parks, Open Space	
Government Operations/Administration	
Education/Outreach	
Taxation & Assessment/Property Information	
Public Safety	
Public Health	
Tourism	
Arts & Culture	
Social Equity & Environmental Justice	
Human Services	
Housing	
Human Capital	

11. What are the primary limitations to accessing the data you need most? (Check all that apply)

- [ ] The data are incomplete
- [ ] The data are old or out of date
- [ ] The data has been collected in an inconsistent manner resulting in poor data quality
- [ ] I don't know where to find the data
- [ ] The data exists, but is too expensive
- [ ] I do not have time to use the data
- [ ] The confidential nature of the data prohibit my use of it

Please note any reason(s) not listed, and/or provide additional detail about distinctions in data access limitations

12. How do your current availability/access limitations with respect to this data affect your work?

- [ ] Inability to complete or start important projects
- [ ] Delayed project completion
- [ ] Reliance on less reliable data sources
- [ ] Reliance on expensive data sources
- [ ] Reduced confidence in project outcomes/conclusions
- [ ] Inability to meet deadline
- [ ] Inability to fully meet agency/organizational charge/mandate

Other (please specify)

13. How frequently would this data need to be gathered and analyzed for it to be relevant to your work?

	Every 5-10 years or Less Frequently	Every 2-5 years	Yearly	Semiannual	Monthly	Weekly	Daily	Real Time
Frequency	◯	◯	◯	◯	◯	◯	◯	◯

14. What geographic scale is most useful or appropriate for the data you need?

	Metro region	City	Neighborhood or business district	Census geography (e.g. tract, block group, block, etc.)	Legislative district
Geographic Scale	◯	◯	◯	◯	◯

Other (please specify)

Lane Livability Consortium Data Questionnaire

Data Sharing

This final section addresses data sharing in the region (e.g. between departments, between agencies, and between topics)

15. How do you share data that you have used for plans or projects? (Check all that apply)

- [ ] I do not share data in anyway
- [ ] I store data on a shared drive for others to access
- [ ] I store data on a website with view access
- [ ] I store data on a website with view and download access
- [ ] I store data in a project folder, but share the data if I am asked for it
- [ ] I share only the final product, plan, project, etc

Other (please specify)

16. Please identify data that your agency owns or has unique access to that you feel could benefit the work of others in the region. Check any that apply.

	Qualitative Data	Quantitative Data	Spatial Data (Including GIS)
Overall Demographic & Population	☐	☐	☐
Specific Demographic Groups (examples:Youth, Senior, Racial Minority)	☐	☐	☐
Environmental	☐	☐	☐
Resource Management	☐	☐	☐
Infrastructure & Utilities	☐	☐	☐
Risk/Emergency Management	☐	☐	☐
Climate Change/Energy	☐	☐	☐
Transportation	☐	☐	☐
Land Use	☐	☐	☐
Economic	☐	☐	☐
Parks, Open Space	☐	☐	☐
Government Operations/Administration	☐	☐	☐
Education/Outreach	☐	☐	☐
Taxation & Assessment/Property Information	☐	☐	☐
Public Safety	☐	☐	☐
Public Health	☐	☐	☐
Tourism	☐	☐	☐
Arts & Culture	☐	☐	☐
Social Equity & Environmental Justice	☐	☐	☐
Human Services	☐	☐	☐
Housing	☐	☐	☐
Human Capital	☐	☐	☐

Other (please specify)

17. Do barriers exist to sharing any of the data noted above? Please explain below.

18. Please list any other comments or ideas you have about data access and sharing in the region.

Lane Livability Consortium Data Questionnaire

Thank you!

Thank you for taking the time to participate in this survey. Please feel free to contact Jacob Callister, Planner at Lane Council of Governments at jcallister@lcog.org or 541-682-4114, or Stephanie Jennings, Lane Livability Consortium Project Manager at Stephanie.A.Jennings@ci.eugene.or.us or 541-682-5529 for more information. We would love to talk to you individually about your ideas for improving data availability and access in our region! Check out livabilitylane.org for more information.

Appendix D

Frequency of the identification of the availability of data (themes) for each respondent's agency

		City of Eugene	Lane County	City of Springfield	Lane Council of Governments	United Way of Lane County	Eugene Water & Electric Board	University of Oregon	City of Coburg	Eugene School District 4J	Parenting Now!	MWMC	Lane Transit District	LCC SBDC	Tamarack Aquatic Center	Centro Latino Americano	Lane DDS	Eugene Police	Central Lane 911	St. Vincent de Paul	Cottage Grove Area Chamb of Comm	Cottage Grove Community Dev Corp.	DHS	Sheltercare	TOTAL
Qualitative	Overall Demographic & Population	1		1	1	1			1																5
	Specific Demographic Groups (examples	3			1	2		1	1		1			1											10
	Environmental	6	1	1	1		1		1			1													12
	Resource Management	2	1	1					1																5
	Infrastructure & Utilities	3		3			2		1			1													10
	Risk/Emergency Management	2	1	2			1		1																7
	Climate Change/Energy						1		1																2
	Transportation	4		4	2	1			1	1			1												14
	Land Use	3	2	4	2				1																12
	Economic	2	1	2		1			1																7
	Parks, Open Space	2	1		1				1		1														6
	Government Operations/Administration	1	1	3					1																6
	Education/Outreach	1	1				1	1		1	1			1											7
	Taxation & Assessment/Property Informa	1	1	1																					3
	Public Safety	2	3	3	2			1																	11
	Public Health		3			1		1			1				1										7
	Tourism																								0
	Arts & Culture	2																							2
	Social Equity & Environmental Justice	1	1					1							1										4
	Human Services		2		1	1		1							1										6
	Housing	1	1	2	1	1			1																7
	Human Capital					1		1																	2
Quantitative	Overall Demographic & Population	1	5	1	3	1										1									12
	Specific Demographic Groups (examples	4	4		1	2		1		1	1					1	1								16
	Environmental	5	1	2	2							1													11
	Resource Management	2	1	1	1																				5
	Infrastructure & Utilities	4	1	4	2		2					1													14
	Risk/Emergency Management	3	1				1																		5
	Climate Change/Energy			1	1		1																		3
	Transportation	4	1	4	2	1				1			1												14
	Land Use	4	2	4	2																				12
	Economic	1	1	2	1	1																			6
	Parks, Open Space	4	2	1	2																				9
	Government Operations/Administration	2	3	2	1					1															9
	Education/Outreach	1	1		1		1	1		1				1											7
	Taxation & Assessment/Property Informa	1	2	1	2																				6
	Public Safety	3	2	2	2			1									1								11
	Public Health		3			1		1			1														6
	Tourism																								0
	Arts & Culture	2	1																						3
	Social Equity & Environmental Justice	1	1		1		1	1		1															6
	Human Services		2		1	1		1									1			1					7
	Housing	2	2	2	1	1																			8
	Human Capital					1		1																	2
Spatial Data (inlcuding GIS)	Overall Demographic & Population		5		4	1																			10
	Specific Demographic Groups (examples	1			2	1																			4
	Environmental	3	4	4	3																				14
	Resource Management	1	1	1	1																				4
	Infrastructure & Utilities	3	2	5	2		3																		15
	Risk/Emergency Management	1	3		2																				6
	Climate Change/Energy				1																				1
	Transportation	3	4	4	3	1							1												16
	Land Use	3	4	5	3																				15
	Economic			1	2	1																			4
	Parks, Open Space	2	5	2	2																				11
	Government Operations/Administration		1	1	2																				4
	Education/Outreach				1																				1
	Taxation & Assessment/Property Informa	1	1	2	3																				7
	Public Safety	1	3	2	2													1							9
	Public Health		3	1		1																			5
	Tourism																								0
	Arts & Culture																								0
	Social Equity & Environmental Justice		1		1																				2
	Human Services		1		1	1																			3
	Housing	2	2	2	2	1																			9
	Human Capital				1																				1
	TOTAL	102	96	84	76	25	15	14	13	7	6	4	3	3	3	2	2	1	1	1	0	0	0	0	**458**

Appendix E: Data Sharing Platforms
Introduction and Examples

The following introduction of data sharing platforms is intended to provdie the Regional Data Advisory Committee and staff with an overview of data sharing technologies that have been noted by committee members, identified by HUD technical assistance staff, and others examples that are notable within the local or greater region.

Geoportal

Leading the open source conversation is Geoportal. This is because Geoportal is already being used by agencies within the region and is something that the Regional GIS Partnership is already investigating. Geoportal is a type of web portal used to find and access geographic information (geospatial information) and associated geographic services (display, editing, analysis, etc.) via the Internet. Geoportals are important for effective use of geographic information systems (GIS) and a key element of Spatial Data Infrastructure (SDI).

Geographic information providers, including government agencies and commercial sources, use geoportals to publish descriptions (geospatial metadata) of their geographic information. Geographic information consumers, professional or casual, use geoportals to search and access the information they need. Thus geoportals serve an increasingly important role in the sharing of geographic information and can avoid duplicated efforts, inconsistencies, delays, confusion, and wasted resources

Modern web-based geoportals include direct access to raw data in multiple formats, complete metadata, online visualization tools so users can create maps with data in the portal, automated provenance linkages across users, datasets and created maps, commenting mechanisms to discuss data quality and interpretation, and sharing or exporting created maps in various formats. Open portals allow the possibility for users to contribute datasets as well.

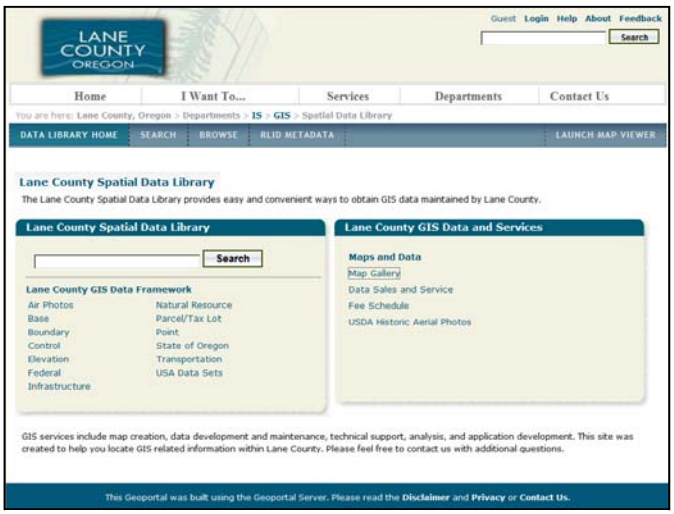


Figure 1: Lane County's Geoportal website

Lane County has been working with Geoportal in recent years. The **Lane County Geoportal** is a web-based application running on an intranet server using LDAP (Lightweight Directory Access Protocol) user authentication (which establishes security protocols) connected to a Microsoft SQL server database.

The Lane County Geoportal has been customized to have a similar look and feel as other standard county web applications and uses a familiar data directory organization scheme as well as a local map service as a geographic reference. There are presently about 110 metadata records in the Lane County Geoportal and the growth of the metadata is an ongoing effort. For

regional staff the Lane County Geoportal application can be viewed at:
http://lcapp11:8080/geoportal

Upon display, the user will be presented with the home page that offers the ability to perform metadata record searches or access other County GIS information. Geoportal is also offered as a means to connect to other "published" metadata resources so that users can discover and access external records. There are also features in the Geoportal that can be implemented to provide data downloads using the metadata application as an initial data discovery point. Although Geoportal is designed for spatial data, non-spatial data can also be added and made available for download.

Lane County staff prepared a more in-depth summary of Geoportal, including an evaluation of strengths and weaknesses and potential use in addressing qualitative and non-spatial data. That summary is included as Attachment A.

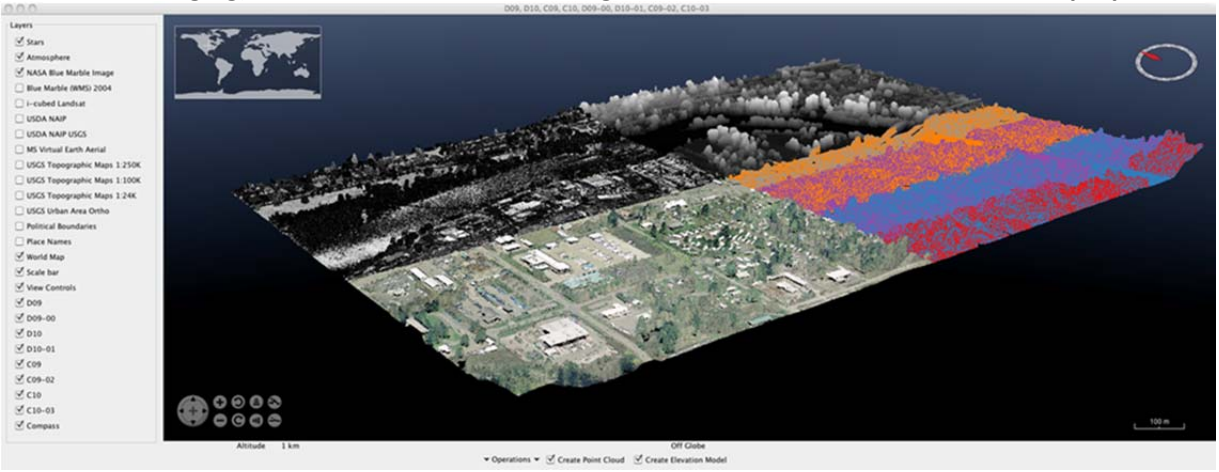
The **Oregon Spatial Data Library** was built on the ESRI Geoportal Server, a joint effort between the Department of Administrative Services Geospatial Enterprise Office and Oregon State University. Currently, more than 200 spatial datasets are accessible from this online library. These datasets serve as "base data" for a variety of Geographic Information System (GIS) applications that support research, business and public services. The targeted primary users for the Oregon Spatial Data Library are staff of agencies, but secondary users include the general public, consultants, educators, and students. This could be a very useful model for future data sharing efforts using Geoportal.

Figure 2: Cropped screenshot from the Oregon Spatial Data Library

World Wind

World Wind is a free, open source application programming interface (API) for a virtual globe. The application was written so as to be cross-platform, intuitive, precise and flexible in supporting many needs. World Wind is used worldwide for a number of purposes including visualizing cities and terrain, analyzing spatial data and simply helping people understand earth systems. Unlike Google Earth, World Wind is a software development kit (SDK) with a powerful geographic rendering engine well suited for large remote sensing data sets, complex 3D renderings and large area regional networks (e.g. hydrography across the Pacific Northwest, transportation systems across the state and global imagery).

Figure 3: Image below displays hi resolution imagery and over 16 million points LiDAR (Light Detection and Ranging), two forms of remote sensing data, in World Wind on a standard laptop



If the region develops modern web-based portals, World Wind presents an opportunity to support raw data and metadata into a single on-line visual virtual globe. Web browser balloons could display HTML, JavaScript, and flash content from metadata repositories. Viewers and layer managers can support loading, displaying and interacting with various mapping formats such as KML, SHP, GML, GeoJSON, GeoTIFF, MrSID, etc. as well as live streaming information (such as WMS) from servers across the region. Collaborative development with World Wind could be a natural next step to investigate if initial efforts with Geoportal succeed.

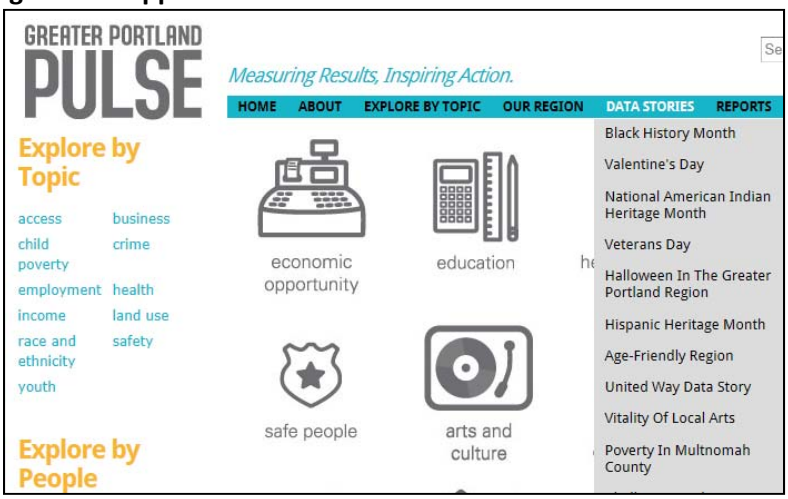
OpenColorado (Colorado) http://data.opencolorado.org/group/drcog

OpenColorado is hosted by the Denver Regional Council of Governments. The vision of Open Colorado is to support a transformation that will lead to a "simple, beautiful, and easy-to-use government." The primary resource is the OpenColorado data catalog. The data catalog allows any municipality, county, government agency, nonprofit, or individual to share open data with the public. The Catalog allows governments and community organizations to provide open access to data on their own websites through a centralized online data catalog (clearinghouse). One can search for data based on groups, data formats or "tags" (subjects). OpenColorado is powered by CKAN an Open Source provider http://ckan.org/.

Greater Portland Pulse http://portlandpulse.org/

Greater Portland Pulse uses data and dialogue to encourage coordinated action for better outcomes across the region. With Weave as the main analytical platform, the site uses indicator data to show where the region is successful and where it's lagging behind in the areas of economy, education, health, safety, the arts, civic engagement, environment, housing and transportation. The indicators often reflect who's being left behind and how communities and the region are impacted as a result. Greater Portland Pulse makes a significant effort to tell data stories and even has a theme based drop-down menu specifically dedicated to "Data Stories."

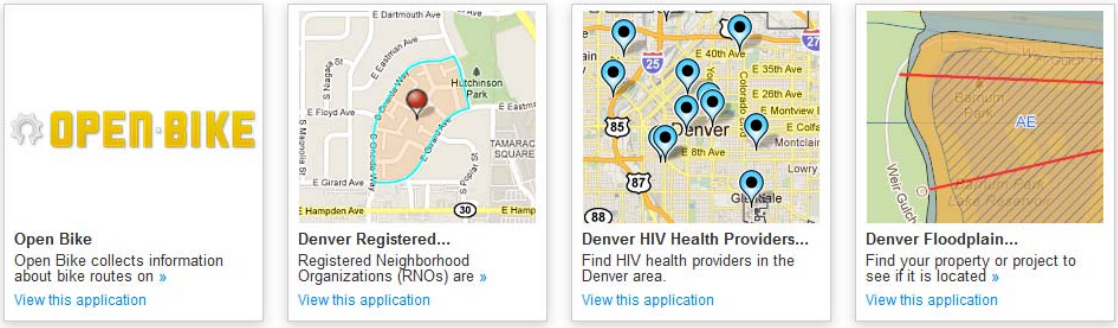
Figure 4: Cropped screenshot from Greater Portland Pulse Website



Open Application Programming Interfaces (APIs)

There is a rich background of application development within our region. RLID.org provides a good example of such applications. However, providing data to support openly developed APIs can be an effective way to utilize untapped social and commercial value in developing applications. When access to data is provided openly to the masses (in bulk or otherwise), an obstacle to data delivery innovation is arguably removed. More individuals and entities working to identify and address data issues can only result in increased innovation. The standard "Open Data" model suggests that data must be free, but open data services (such as an API) can be charged for. This provides one of the most immediate opportunities around open data by incentivizing innovation. Figure 27 presents examples of applications developed as a result of the Open Data approach taken by governments in the Denver Area through OpenColorado.

Figure 5: Examples of applications (APIs) developed through OpenColorado



Data Dashboard Approaches

One data sharing concept which was well received by the Regional Data Advisory Committee was that of "Data Dashboards." Generally speaking, the idea of Data Dashboards is to provide at-a-glance views of key performance indicators relevant to a particular objective. This approach is becoming increasingly commonplace in numerous arenas, including business, education, public health, and other public administration. The term "dashboard" originates from the automobile dashboard, where drivers monitor the major functions at a glance via the

dashboard. Just as in a car, dashboards allow users to quickly know if something is wrong or if something is right. Following are a few examples of the dashboard concept in application.

Kansas City, KCStat ***https://kcstat.kcmo.org/***

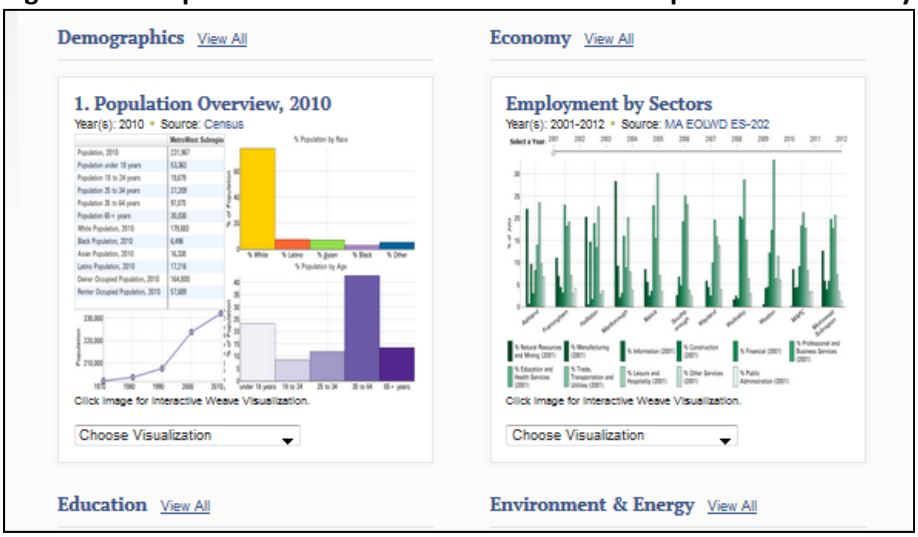
KCStat focuses on the City's six strategic priority areas: Public Infrastructure, Economic Development, Public Safety, Healthy Communities, Neighborhood Livability, and Governance. One additional priority cuts across all outcome areas and concentrates on Customer Service and Communication. The KCStat Dashboard provides an "at-a-glance" view of each priority's current status. KCStat is powered by Socrata, and Open Source provider http://www.socrata.com/

Figure 6: Example Dashboard figures for Priority Areas on KCStat

MetroBoston Data Common ***www.metrobostondatacommon.org/snapshots/***

The MetroBoston DataCommon provides accessible information about the Boston Metropolitan Region's people and communities through a variety of topics including arts, education, environment and transportation. It is a resource for residents, stakeholders, planners, city and town officials, educators and journalists to explore data and make informed decisions. The site is very sophisticated and multi-faceted, but a "snapshots" component of the site provides information in a "dashboard" format. Users can isolate data for specific geographies within the region and can view user friendly and current summary statistics (and maps) for a number of topics. DataCommon does not go so far as to explicitly suggest whether key indicators are "on task" or "need improvement" as KCStat does (see Figure X for an example).

Figure 7: Examples of MetroBoston DataCommon "Snapshot" functionality



The MetroBoston DataCommon supports a much larger region (in size and population). It does, however, provide some good examples for potential dashboard elements and approaches for a future data sharing strategy.

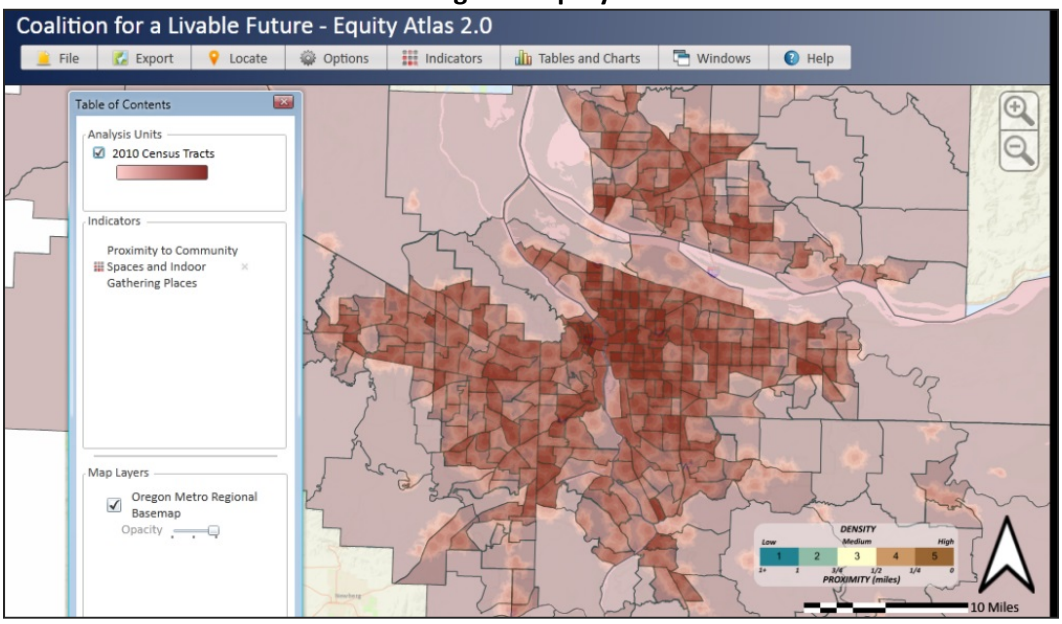
Data Mapping Approaches (GIS Portals)

There is significant local interest in providing more interactive mapping resources. This addresses a frequently noted concern that data can be difficult to weave into a poignant "story." Maps can be an effective to convey or discover such data "stories." There is significant existing web mapping capacity within GIS divisions in the region, as well as existing tools (e.g. RLID Maps, LaneCountyMaps, MapSpring). And there are a number of innovative and relatively accessible tools and examples to expand data mapping in the region. Mapping-only platforms are interactive, though they tend not to have a user-friendly interface. GIS Portals typically do not provide space for collaborative analysis or interpretation of data. Following are a few examples.

Regional Equity Atlas 2.0, Portland (Coalition for a Livable Future)
https://gis.oregonmetro.gov/equityAtlas/

The Regional Equity Atlas is a tool that was designed to enable~~s~~ understanding of how well different neighborhoods and populations across the Portland region are able to access resources and opportunities to meet their basic needs. Through the use of maps and data, the Atlas provides a visual depiction of disparities and illuminates how the benefits and burdens of growth and change are distributed across the region. One advance utility of the Regional Equity Atlas 2.0 is that the web-based Mapping Tool enables users to make and edit their own maps (in addition to providing finished thematic maps and preliminary analysis of many key issues.)

Figure 8: Screen shot of "Proximity to Community Spaces" within Regional Equity Atlas 2.0



InstantAtlas (E.S.R.I.)

InstantAtlas™ enables information analysts and researchers to create highly-interactive dynamic and profile reports that combine statistics and map data to improve data visualization, enhance communication, and engage people in more informed decision making. InstantAtlas enables numerous dynamic reports with built in templates, including time series alternatives. The service is available under license (desktop or server).

Figure 9: Example of the InstantAtlas Dynamic Reports

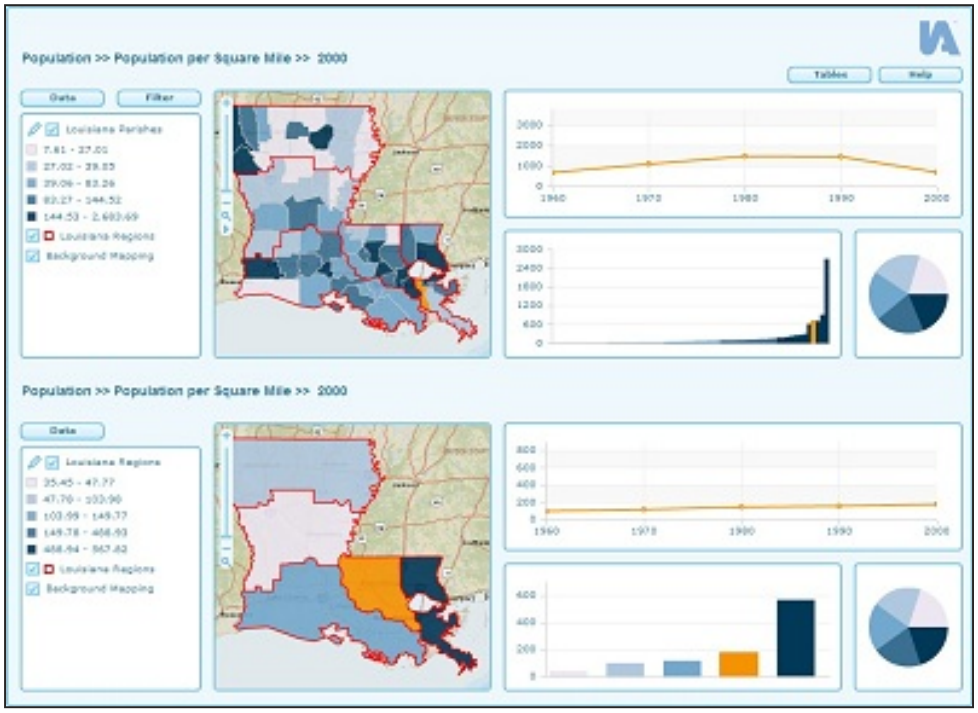


Table 1: Summary of Sharing Frameworks outlined in Section 4.2

Samples	Framework Type	Open vs Vendor	Powered By
Technologies			
Geoportal Server	Inventory/Catalog or Warehouse	Open (Built on ESRI software)	ESRI
World Wind	Data Commons	Open	World Wind (NASA)
InstantAtlas	Data Commons(Mapping focus)	Vendor	ESRI
Applications			
OpenColorado	Inventory/Catalog or Warehouse	Open	CKAN
Greater Portland Pulse	Data Commons	Open	Weave (in part)
KCStat	Data Commons (Dashboard)	Open	Socrata
MetroBoston DataCommon	Data Commons	Open	Weave (in part)
Regional Equity Atlas 2.0	Data Common (Mapping)	Unknown	Portland Metro
Key Existing Local Examples (Mapping)			
RLID Maps	Data Commons	Vendor	ESRI (Geocortex Essentials)
MapSpring	Data Commons	Vendor	MetroPlanning Inc.
LaneCountyMaps	Data Commons	Unknown	Unknown

Geoportal and Regional Data Sharing

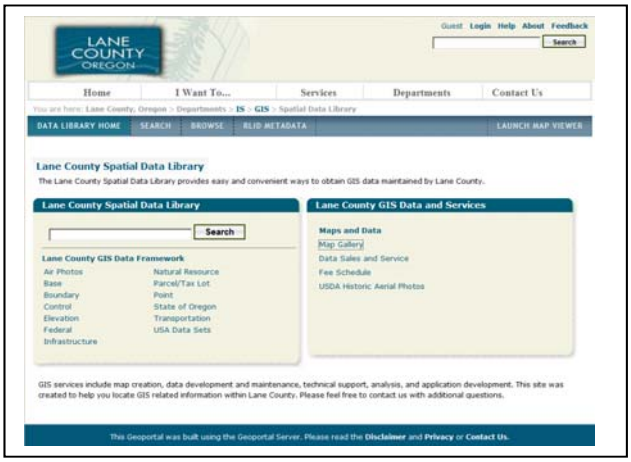
Background

In the fall of 2011, Lane County GIS staff began investigating the possible use of the Geoportal software as a tool to develop metadata for GIS data holdings. Geoportal is Open Source software developed by ESRI (Environmental System Research Institute) that offers a metadata web-enabled product capable of connecting to several varieties of relational databases. Open source software is "software that can be freely used, changed, and shared … by anyone. Open Source software is made by many people and distributed under licenses that comply with the Open Source Definition." ESRI chose to develop the Geoportal as an Open Source offering in order to provide improved integration with other systems, promote collaboration, and meet government and individual agency requirements. Geoportal is highly customizable and initial investigations indicated that it could be a viable tool for developing a web-enabled platform for creating and maintaining metadata in a shared environment.

An initial test of Geoportal was implemented on a standalone server running Apache Tomcat 6.x as the Java Servlet (web container) and PostgreSQL 8.x as the database engine. Simple user authentication (no user login/password or security) was used during the test. And in keeping with our local decision to develop metadata using the FGDC (Federal Geographic Data Committee) standard, the test Geoportal was implemented using a slightly modified FGDC standard; although Geoportal does support other metadata standards such as the International Organization for Standardization (ISO) and the Infrastructure for Spatial Information in Europe (INSPIRE). After about 10 months of testing, Lane County staff determined that Geoportal was a viable platform for creating a local metadata application.

Lane County has since ported the Geoportal application to an intranet server using LDAP (Lightweight Directory Access Protocol) user authentication (establishes security protocols) connected to a Microsoft SQL server database. The Lane County Geoportal has been customized to have a similar look and feel as other standard county web applications and uses a familiar data directory organization scheme as well as a local map service as a geographic reference. There are presently about 110 metadata records in the Lane County Geoportal and the growth of the metadata is an ongoing effort.

For regional staff the Lane County Geoportal application can be viewed at:
http://lcapp11:8080/geoportal



Upon display the user will be presented with the home page that offers the ability to perform metadata record searches or access other County GIS information.

Geoportal is also offered as a means to connect to other "published" metadata resources so that users can discover and access external records. There are also features in the Geoportal that can be implemented to provide data downloads using the metadata application as an initial data discovery point.

Other Metadata Tools

A regional metadata application currently exists that grew out of an effort to build an Access-based application to document regional GIS data holdings. The Access application was also organized around the FGDC standard and was well supported by Lane Council of Governments and championed by the City of Eugene. This application has since been "web-enabled" and contains almost 400 metadata records; most of them related to Eugene data. The "RLID Metadata" application is accessible from the Lane County Geoportal via the "RLID Metadata" tab:

http://lcapp11:8080/geoportal/catalog/RLIDmdlink/RLIDmdlink.page

Lane County never wholly embraced the RLID Metadata application since initial efforts to add records through the Access application were thwarted due to application incompatibilities between different versions of Access (County on one version of Access, application running on a more current version) and regional network problems gaining access to that application.

ESRI's ArcCatalog product has a built-in metadata editor and was tested by Lane County as part of a work flow process to build initial metadata records in ArcCatalog; export to an .xml FGDC standard file; and then import to the Geoportal. Since the Geoportal already has a built-in metadata editor it was determined that using ArcCatalog as an initial data entry point only added additional (and unnecessary) steps to the work flow process. (*It should be noted that this work flow process is still under review by Lane County GIS since Geoportal also provides an "add-on" tool called the Publisher Client which offers the ability to create metadata in ArcCatalog and then, using the Publish Client, publish the metadata record to Geoportal. Metadata validation is provided by the Publish Client which can catch errors before the record is committed to the Geoportal database.)*

ESRI has also provided an update to the FGDC metadata editor "plug-in" to ArcCatalog 10.x. This was also tested and while it offers the advantage of conforming to the FGDC standard it met with the same work flow issues mentioned above.

Lane County GIS staff also tested the Environmental Protection Agency (EPA) metadata editor tool (EME). This tool had a steeper learning curve and presented the same work flow problems mentioned above.

For Lane County the Geoportal application offers an opportunity to document data holdings in a standardized environment, capable of being easily shared and presented back to the user in an easy-to-read format. It also offers greater security, a peer review process, and an administration tool for managing the metadata records. In addition it keeps the metadata entry work flow process clean and simple. Geoportal is essentially being used by Lane County GIS staff as a "one stop" solution for entering, updating, and managing metadata records.

Geoportal – Strengths and Weaknesses

The Lane County experience with Geoportal implementation has indicated a number of concerns and also highlighted many advantages over existing local metadata applications.

WEAKNESSES	
Ease of implementation	ESRI has provided a nice user guide for getting a basic geoportal up and running quickly. However, implementing some of the more advanced features (such as security protocols) and even customizing the user interface, can be daunting.
Technical help	Initially ESRI provided geoportal technical help as part of their software maintenance package. ESRI has dropped that and now offers technical help for geoportal on a contract basis. There is a user forum for finding answers to questions but this can be time-consuming.
FGDC Standard deficiency	ESRI did not provide the dedicated metadata editor for geoportal with the function for documenting an FGDC detailed description of the "entity and attribute" data; only an overview description. Lane County was able to obtain a patch for this function but it took some time for ESRI to come through with the patch and still does not appear to be part of the core product.
Security Protocol	Lane County GIS worked diligently with IS staff to implement security features using the LDAP standard. This was an uphill climb that took a lot of time to troubleshoot and get working properly. Even ESRI staff were unable to help on this.

Despite the difficult learning curve for fully implementing the Geoportal, many nice advantages are apparent.

STRENGTHS	
Very Customizable	The Geoportal is built using .xml files and java script files that provide the user with a lot of flexibility to apply custom functions and a custom look and feel to the application.
Easy to share data	The geoportal is a web-enabled application that can be shared across the intra/internet with other users. Lane County has plans to create an internet version of their geoportal in the near future. It is also possible to link to other geoportals through a "federated search" mechanism so that external records can be viewed as part of the geoportal application.
Administration/Security available	Geoportal offers a means to assign administrator privileges so that metadata records can be reviewed before being posted to the database. Access can be designated as users (view only); contributors (add but not changes), editors (add and change) and full administrator.
Better Integration with other applications	Geoportal offers an opportunity to integrate metadata access into other GIS applications: • Link from web mapping apps to the Geoportal metadata • Link from ArcMap to Geoportal
FGDC Compatible	We are using a fairly "bare bones" approach to creating metadata records. This means that an FGDC-compliant record can be added to the data base with a minimal amount of information and still pass the validation tests. However, we are also filling in as much information about the entity and attribute data as possible to give the user a better understanding of the data.
"Fun" to use	Adding metadata is fairly simple and done through a series of tabs and fill-in menus. Creating a browse graphic adds a map element to the Geoportal records making it visually more appealing and understandable.
Has strong data search features	The Geoportal can be used to search for metadata records using keywords, by user defined data categories, by partial words, and even by geographic extent or place names.
Customizable Metadata Report	The Geoportal stores standard .xml files to the database which can be displayed back to the user. However, these are not in a very user-friendly format. A "Details" view of the report is offered that uses an xml stylesheet to create a custom report in a much nicer format capable of being printed.

Geoportal and Project Documentation

The original intent of developing the Geoportal application was (and still is) to provide a means to document our GIS data holdings and offer users easy access to finding metadata. However, Geoportal can also be used to document not only GIS data layers but other project-related information as well.

The Lane Livability project is consuming, and even generating, GIS data. Some of this data is already, (or soon will be) documented in Geoportal. The Geoportal can be organized so that metadata records can be grouped by various categories – such as base data, boundary data, airphotos, transportation data, and so on. In addition, the Geoportal can be used as a dynamic tool for organizing other information about a project for which documentation would be useful to users, stakeholders, and project participants. This might include the following:

- Creating a series of "Project Groups" in the Browse Tree that presents information about past and ongoing projects; such as Lane Livability.
- Including metadata records that document not only the GIS data; but also other components of a project; such as documents, published plans, meeting notes, public comment, and so forth. These types of metadata records deal more with qualitative descriptions of a project and the project data. But users still benefit by being able to easily find this type of information which is one of the key strengths of the Geoportal.
- Creating a series of related websites that are easily accessed through the Geoportal. In this sense the Geoprotal becomes a "jumping off" spot for locating other web-related applications and resources.

The dedicated metadata editor in Lane County's Geoportal is using the FGDC standard. However, records can be entered into this standard that describe other "data" beside GIS layers. The Geoportal editor has been implemented such that only a minimal amount of FGDC standard information is required. For example, if someone wanted to add a metadata record that documents the content, description and location of a project document (such as a plan); then the Geoportal could be used in that fashion.

Geoportal User Site Examples

Oregon Spatial Data Library:
http://spatialdata.oregonexplorer.info/geoportal/catalog/main/home.page

Open Raleigh – City of Raleigh GIS Data Portal:
http://maps.raleighnc.gov/geoportal/catalog/main/home.page

Match – Metadata Access Tool for Climate and Health – US Global Change Research Program:
http://match.globalchange.gov/geoportal/catalog/main/home.page

EPA Environmental Dataset Gateway (EDG):
https://edg.epa.gov/metadata/catalog/main/home.page

Appendix F

Lane Livability Data Advisory Committee: Anticipated Staffing Costs

Total Annual Staffing Cost:	**$**	**25,611**

Meeting Coordination and Facilitation — **Annual FTE Cost: $ 8,938**

Coordination role will be responsible for preparing and facilitating approximately (8) meetings per year at approximately (4) hours per meeting. Preparation of each meeting will require approximately (4) hours to schedule, develop meeting notices and address questions from participants. Meeting follow up will require an additional (4) hours to summarize meeting findings, update impacted documents and respond to questions from participates. Estimate includes some additional time for non-meeting activities.

Hours Annually (8 meetings)*((4 hrs. preparation)+(4 hrs. meeting)+(4 hrs. follow up)) = 96

Anticipated Hourly Cost:	Rate	Indirect	Total Hourly
	$ 49.00	90%	$ 93.10

Anticipated FTE Cost:	FTE	Day	Week	Month	Year
	0.05	$ 36	$ 178	$ 712	$ 8,938

Technical Support — **Annual FTE Cost: $ 16,013**

Technical role will be responsible for updating data elements of the Lane Livability Tool Kit and coordinating regional data catalog metadata into GeoPortal (GP) pilot site, as well as any unique research necessary to support investigation and evaluation of other data platforms. Updates to the Lane Livability Tool Kit (LLTK) will occur monthly or (10) times per year at approximately (4) hours per update. Updating the GeoPortal site will be ongoing, but is estimated to occur at an average of (18) times per year and require (4) hours per update. Estimates above include time to organize and prepare data and materials prior to making updates to Committee and respective sites.

Hours Annually ((10 LLTK updates)* (4 hrs.)) + ((18 GP updates)* (4 hrs.)) + 60 hrs evaluation support = 172

Anticipated Hourly Cost:	Rate	Indirect	Total Hourly
	$ 49.00	90%	$ 93.10

Anticipated FTE Cost:	FTE	Day	Week	Month	Year
	0.09	$ 64	$ 319	$ 1,276	$ 16,013

Work Hour Assumptions	100% FTE
Work hours per Day	8
Work hours per Week	40
Work hours per Month	160
Work Hours per Year	2008

--> Source: http://www.workingdays.us/#aepd
(July 1, 2014 - June 30, 2015 = 251 work days)

Meeting and Travel Expense — **Annual Cost: $ 660**

Meeting and Travel Expense will include approximately (4) out of town trips at approximately (200) miles per trip and approximately (3) meals per day or (1) daily per diem per trip to discuss data advisory issues, methods and proposed solutions with comparable metro regions such as Portland, Seattle and San Francisco. For purposes of estimating costs, the number of trips and mileage have been normalized. Actual costs will be contained by conducting conference calls, exchanging emails and using various forms of remote communication.

Travel Miles Annually (4 trips) * (200 miles per trip) * (56 cents per mile) =	$	448
Travel Meals Annually (4 trips) * ($53 daily per diem) =	$	212

IRS Standard Rates	Rate
2014 Standard Mileage Rates for business miles driven	$ 0.56 per mile
GSA Meals and Incidental Expenses (M&IE) Breakdown	$ 53 per day average