

STUDY PROCESS AND METHODOLOGY

Background

The Mt. Hood Cable Regulatory Commission (‘MHCRC’ or ‘Commission’) contracted with CBG Communications Inc. (‘CBG’) in April 2019 to conduct a Study of local community use of and needs for communications technology. The Study followed up on similar work completed in 2010 under the MHCRC’s Your Voice, Our Communications Technology initiative¹. The current Study, also referred to as a “Community Technology Needs Ascertainment,” (hereinafter “Study” or “MHCRC Study”) provided an opportunity to document changes in communications technology over the past 10 years, assess present technology use and availability, and project future needs of local communities. The geographic area for the Study reflects the MHCRC service area, which includes the cities of Portland, Gresham, Fairview, Troutdale and Wood Village, and unincorporated Multnomah County (MHCRC Jurisdictions).

Specifically, the Study explored the following key questions:

- 1) What is the level of communications technology and services in our communities today?
- 2) What barriers are creating inequities for underserved communities?
- 3) What are our communities’ communication technology future needs and interests (2-10 years)?
- 4) What is the role of local government in meeting the communications technology-related needs of our communities?
- 5) What has been the impact within our communities of existing public benefit requirements of the cable franchise agreement?
- 6) How have our communities’ access to communications technology changed in the past 10 years?

The MHCRC also recognized the need to more deeply understand barriers for known disparities in technology access and adoption for people of color, people living with disabilities, and seniors. The MHCRC hired a local consultant, Esper House, to design and implement in-person data collection activities, in partnership with local, culture-specific organizations, to engage these target populations in the Study. Esper House also advised on issues of cultural inclusivity for the broader study methods to assist in representative participation in data collection.

In this regard, the Study reflected the MHCRC’s long-standing commitment to digital equity and inclusion. For the purposes of this Study, digital equity means everyone has sufficient access to, and understanding of, information and communications technologies, regardless of socioeconomic status, physical ability, language, race, gender, or any other characteristics that have been linked with unequal treatment and/or outcomes. Digital inclusion refers to the processes, strategies and activities undertaken to reach the goal of equity.

¹ For purposes of promoting participation in the current Study, it was branded similarly as “Your Voice, Communications Technology”

Although the Study's local data and related trend and data analysis will help inform decision-making by elected officials, public agencies, community organizations, and others on local communications technology policy, initiatives and services, the primary known uses are to inform:

- Public benefits for cable services franchise renewals (MHCRC, MHCRC Jurisdictions);
- Phase II of the Digital Equity Action Plan of the City of Portland, Multnomah County, and Multnomah County Library;
- Status and potential update to the Portland Broadband Strategic Plan, led by the City of Portland, Office for Community Technology; and
- Community media and digital inclusion services provided by Open Signal and MetroEast Community Media.

For purposes of this Study, the term *communications technology* primarily means the tools, methods, services, and support infrastructure that people and organizations use to communicate. This can encompass a variety of components including:

- Network infrastructure and services, that carry data, voice, and video signals (i.e. Fiber or wireless networks)
- Services, such as cable television, video streaming, cellular, Internet
- Physical devices/equipment that people use to communicate, such as smart phones, computers, tablets, etc.
- Equipment people use to produce video and multi-media communications
- Software-based applications “apps” downloadable on communications devices

Many of these are interrelated. Depending on the population segment responding to the ascertainment, all can be thought of as a part of communications technologies.

Study Design

Prior to contracting with CBG and Esper House, the MHCRC developed the Study's key questions (listed above), categories, and elements for each category, which provided the framework and focus for the ascertainment design. The full framework, including the categories and elements, can be found in Attachment 6 - Project Planning Materials. As an example, one of the identified categories, “Access to Technology”, included the following elements: geographic accessibility; affordability; adoption/utilization; multimedia literacy; capacity/speed; and mobility.

In addition, the Commission identified key sectors, stakeholders, and demographic populations for inclusion in the Study².

As examples, key sectors included education, non-profits, and healthcare; stakeholders included cable subscribers, MHCRC Community Grants recipients, and MHCRC Jurisdictions; and, as noted above, target demographic populations included communities of color, people living with disabilities, and seniors.³

² See Attachment 6 – Project Planning Materials.

³ For purposes of the Study, “seniors” are defined as persons age 65 and older.

In May through early October 2019, CBG, MHCRC staff, and Esper House undertook in-depth planning to design the ascertainment lead research questions and corresponding data collection methods for data sets that would produce Study findings for each key question. This design planning process included seeking input and vetting initial drafts of lead research questions to better understand what information and data would be useful to the primary ascertainment constituencies about the communities' needs for and use of communications technologies.

Those constituents included, among others: Open Signal and MetroEast Community Media; the Digital Inclusion Network; Multnomah County Library; City of Portland staff living with disabilities; the Portland Smart Cities Steering Committee; and elected officials and staff of the MHCRC Jurisdictions. The full list of people that were part of the vetting process is included in Attachment 6 – Project Planning Materials.

This process led to the final set of 66 lead research questions grouped under the Study's key questions. CBG developed a data map to show the relationships and interrelationships among the key questions, lead research questions, categories, and elements. The list of lead research questions and the data map graphic can be found in Attachment 6 – Project Planning Materials.

Once the lead research questions were finalized, CBG and Esper House developed local data collection methods to produce data sets that would inform the lead research questions. CBG further mapped the lead research questions and data collection methods to the stakeholders, sectors, and demographic populations to be assessed. This was a detailed process that involved CBG (including our research team partners Telecommunications Research Corporation, Riley Research Associates, and Carson Hamlin, Media Integration Specialist), MHCRC staff, and Esper House. As the data map spreadsheet was refined, it became evident that not every lead research question would potentially be informed by the ascertainment's locally-gathered data. Accordingly, CBG and MHCRC staff identified other local, state, and national data that could inform certain lead research questions or portions of questions as part of developing the Study's findings.

The data map spreadsheet also enabled Esper House to design their data collection activities with their community partners to obtain relevant qualitative data from people of color, seniors, and people living with disabilities.

As an example, the lead research question "What are the primary factors in how and where people access the Internet?" was mapped to multiple data collection methods across multiple sector and stakeholder groups, including:

- The Scientifically-valid Residential Telephone Survey,
- The Qualitative Public Online Survey,
- The Esper House focus groups and interviews,
- The local government/MHCRC jurisdictions focus groups/meetings, and
- Data gathered as part of surveys and a study conducted in Multnomah County.

All data collection methods are discussed in further detail in the next section.

Data Collection

The MHCRC Study data collection was completed primarily between October 2019 and March 2020, with the Community Media Survey remaining open through April 2020.

It's important to note that, except for one survey noted above, nearly all the data was gathered prior to the COVID-19 pandemic emergency stay-at-home order issued for Multnomah County in mid-March 2020. A substantial amount of research between March 2020 and the date of this report shows that communications technology is integral to the functioning of our society, especially related to education and telework. CBG has reviewed a portion of that research and, wherever applicable (i.e. where CBG believes the new data has impacted, augmented, or reinforced a finding), the research is described and footnoted as part of the finding.

Both CBG and Esper House conducted activities to collect local data for the Study. MHCRC staff also provided existing data related to several programs they oversee. Further data was gathered as part of independent surveys and a study conducted in Multnomah County. To supplement the local data collected through the activities outlined below, CBG reviewed a wealth of local, state and national studies and other research. Data sources are noted throughout the report and a list of other research utilized is compiled in Attachment 7 - Data Resources Bibliography

CBG Data Collection

➤ Scientifically-Valid Community Technology Residential Telephone Survey

A 52-question, random-sample, scientifically-valid telephone survey of 630 area residents, including a sampling of cable subscribers, was conducted by CBG Communications' partner, Riley Research Associates (RRA) and included both landline and cell phones. Spanish language interviewers were made available as needed. The survey employed a methodology for respondents to best reflect the Study's demographic groups of age, ethnicity, persons with disabilities, geographic location, and home ownership for Multnomah County based on US Census Bureau data. Detailed findings and analysis from this survey are reported in Attachment 2. – hereinafter “Scientific Residential Survey Report”. Full survey results can be found in Attachment 2.A – hereinafter “Scientific Residential Survey Results”. Survey results from the Study's target populations are provided in Attachment 2.B – hereinafter “Scientific Residential Survey Underserved Community Results”.

➤ Qualitative Community Technology Public Online Survey

CBG developed a qualitative community technology public survey, conducted primarily online in English and Spanish, to assist with more deeply understanding community members' current and future communications technology needs and barriers to connectivity. For example, respondents who identified as a person or household living with a disability or, those without Internet access at home, answered some specific questions along with the overall survey questions. Respondents, who lived and/or worked in Multnomah County completed 442 surveys. Detailed findings and analysis for this survey can be found in Attachment 3. – hereinafter “Qualitative Public Survey Report”. The full Qualitative Public Survey results can

be found in Attachment 3.A - hereinafter “Qualitative Public Survey Results”. Specific Study target population results and Open Coded responses can be found in Attachment 3.B – hereinafter “Qualitative Public Survey Open Codes/Underserved Community Results”.

MHCRC staff and Esper House employed several outreach methods to encourage participation in the Qualitative Public Survey by the Study’s target populations, including outreach materials available in Spanish, paper surveys available in English and Spanish, the ability to take the survey by phone in Spanish and English, newsletter postings by community organizations, and Twitter posts. Although the overall number of responses was less than anticipated, the survey successfully hit Census data benchmarks for participation by people living with disabilities, seniors, and people within geographic areas. Survey participation from people of color was underrepresented (27% participation vs. 32% Census population), primarily attributable to lack of successful engagement for people who identified as Hispanic/Latino (8% participation vs. 12% Census population).

➤ **Community Online Media Producer/User Survey**

An online survey was designed for people involved with community media (hereinafter “Community Media Survey”) through Open Signal and/or MetroEast Community Media. The community media centers promoted survey participation through their member newsletters and emails, individual phone calls, and social media. The survey included 33 community media-specific questions and a total of 274 responses were collected. Detailed findings and analysis of the Community Media Survey can be found in Attachment 4 - hereinafter referred to as “Community Media Survey Report”. The full Community Media Survey results can be found in Attachment 4.A - hereinafter “Community Media Survey Results”. The full set of Community Media Survey Open Codes can be found in Attachment 4.B - hereinafter “Community Media Survey Open Codes”.

➤ **I-Net Stakeholders**

A significant amount of documentation was reviewed related to the use of the Institutional Network (I-Net) a fiber-based communications network, to assess current and future I-Net needs. This included: I-Net survey results from 2005 and 2009 (to obtain baseline information for ten-year comparative purposes); I-Net site documentation provided by MHCRC staff; and the CTC Fiber Optic Needs Assessment Report (2018). The I-Net data review is summarized in Attachment 1.B – hereinafter referred to as I-Net Review Summary.

➤ **MHCRC Grant Recipients’ Reports**

As part of the Study planning, a survey was designed for MHCRC Community Technology Grant and TechSmart Initiative grant recipients. However, it was timed for March 2020 and ultimately could not be implemented because of the impact of COVID-19 on grantees’ abilities and capacity to participate. Accordingly, MHCRC staff provided qualitative and quantitative data from an analysis of grant applications and Final Reports from MHCRC Community Technology Grant recipients, for grants awarded between 2012 and 2019. Additionally, a spreadsheet delineating TechSmart Initiative grants awarded between 2014-2019 was also

provided by MHCRC staff. The spreadsheet provided information on the public school districts receiving the grants, the projects that were funded and the amount of funding provided in each case. This information was evaluated and is referenced at certain points in the Study findings.

➤ **Focus Groups/Workshops/Interviews – Sectors and MHCRC Stakeholders**

A substantial amount of data was gathered through focus groups, a workshop, and interviews, focusing on sectors and MHCRC stakeholders (further described in Attachment 6 - Project Planning Materials). Focus group discussion guides, related PowerPoint guide materials, interview guides and, in some instances as noted below, companion surveys, were developed to obtain qualitative data from these sectors and stakeholders. The method used and the representatives engaged in the group discussions and interviews are described below.

Detailed Notes from each group discussion and interview can be found in Attachment 1, Workshop, Focus Group, and interview Discussion Notes (hereinafter “Discussion Notes”).

- City of Portland: Three communications and community outreach representatives from the Fire Bureau, Development Services, and the Office of Management and Finance participated in a focused discussion. Surveys regarding communications technology use for internal operations were also received from the three participating bureaus.
- City of Gresham: A focused discussion was held with seven representatives from multiple agencies including executive administration, technology, communications, community engagement, and digital media production.
- Cities of Troutdale, Fairview, and Wood Village: A focused discussion was held with five city employees representing communications, executive administration, and information technology functions of the cities. Supplemental surveys and additional information were received from each City.
- Multnomah County: Six County employees who manage technology and network services and infrastructure for the County and Multnomah County Library engaged in a focused discussion. A supplemental survey was also received.
- Multnomah County Library: Nine branch librarians and related staff from libraries that serve high poverty areas throughout the County participated in a focused discussion.
- Community Media Centers and Access Channel Providers: Focused discussions and interviews were held with five organizations whose mission includes media and technology training and hyperlocal content production. These included:
 - Open Signal: CBG conducted a focus group with 14 Open Signal staff, including the executive director and personnel from production services, media education, equity and inclusion, information technology, and facilities.

- MetroEast Community Media (MetroEast): CBG held a focused discussion with four staff, which included the CEO, the Operations Coordinator, the head of Production and the Digital Equity and Inclusion Program Manager.
- Portland Community College Media Services: A focused discussion was held with the Director of Marketing and five staff of the Media Services Department, which programs its Access Channel.
- Portland Community College Multimedia/Video Production Curriculum Department: CBG conducted an interview and site visit with the Department Chair/Instructor at the Cascade Campus.
- Portland Public Schools Access Channel: CBG conducted an interview and site visit with the Manager of Multimedia Services and the Communications Department where the production facilities are located.
- Digital Inclusion Network (DIN): A focused discussion was held with 20 DIN participants, including non-profits, governmental agencies, and others working on digital inclusion, multimedia literacy, and other Internet adoption issues surrounding equitable access to communications technology. Four follow-up surveys were also received from DIN members.
- Public School Districts: A two-hour workshop engaged approximately 30 public school staff members, including school-based principals, technology innovation/integration coaches, district-level curriculum and instruction directors, and technology managers. Participants were from five public school districts within Multnomah County.
- Oregon Health & Science University (OHSU): CBG conducted a long interview with the OHSU Medical Director of Telehealth Services and professor of Pediatrics & Anesthesiology, Division of Critical Care Medicine; and the OHSU Manager of Network Architecture and Engineering.
- Smart City PDX (City of Portland): CBG interviewed an Equity Advisor to the City of Portland Smart Cities Steering Committee and the Smart City PDX staff within the Bureau of Planning & Sustainability.

➤ **Community Media Review**

Because of the importance of localism for media and communications technology, a focus was placed on ascertainment of local needs and interests related to community media services and access channels provided on the cable systems. As indicated above, this included a survey of community media producers and users, a review of viewers' perceptions concerning community media, and focused discussions and interviews with community media center and community access channel staff.

CBG also analyzed data from the four organizations that program the local access channels. These included Open Signal (OS), MetroEast Community Media (MetroEast), Portland Public Schools (PPS) Channel 28, and Portland Community College Channel 27 (PCC-TV). The analysis included site visits to review facilities and equipment and review of the following:

- Annual production statistics for the channels, including original and imported programming, for the current, preceding, and projected years (including semi-annual reports where available).
- Online streaming and on-demand access usage statistics, including unique visitors and hits for on-demand, streaming and other relevant web information.
- A description of existing facilities and equipment and any planned upgrades.
- Staffing levels and descriptions.
- Operating budgets and projections.
- Program schedule for the channel, including any planned additions or changes (or links to pertinent web URLs).

➤ **Esper House Data Collection**

Esper House conducted qualitative data collection activities, focusing on participation by people of color, persons living with disabilities, and seniors (the Study “target populations”). Esper House, beginning at the end of 2019 and continuing through March 2020, performed a variety of community engagement activities concerning these underserved communities. Esper House built on established relationships with individuals and community partners to outreach to more than 20 community leaders to gauge their interest and capacity for partnering on data collection activities. This resulted in: One engagement session with community leaders who are people of color; three discussion sessions hosted by trusted community-based organizations that engaged people of color and people with disabilities; and nine interviews with individuals who identify as a person of color, person living with a disability, and/or a senior.

The full findings and analysis from the Esper House data collection are included in Attachment 5 - “Underserved Communities Engagement Report Mt Hood Cable Regulatory Commission Community Technology Needs Ascertainment” (May 2020) (hereinafter “Esper House Report”).

➤ **Business Sector**

For local business sector data, CBG relied on a study conducted by CTC in early 2020, on behalf of Multnomah County and the cities that make up the MHCRC Jurisdictions, which resulted in data collected on the communications technology-related needs and interests of the business community. Due to the business sector data being gathered during the same timeframe as the ascertainment data collection that was consistent with the ascertainment data needs, there was no need to duplicate efforts. This data gathered is part of independent surveys and the study conducted in Multnomah County (hereinafter “County Data”).