November 10, 2022

To: Supervisor Holly J. Mitchell, Chair
            Supervisor Hilda L. Solis
            Supervisor Sheila Kuehl
            Supervisor Janice Hahn
            Supervisor Kathryn Barger

From: Selwyn Hollins
            Director

QUARTERLY UPDATE – INVESTMENTS TO ACCELERATE DIGITAL EQUITY

On November 16, 2021, the Board of Supervisors (Board) approved a motion to invest in immediate- and longer-term efforts to facilitate affordable and reliable high-speed internet services to underserved communities impacted by the digital divide (Board Agenda Item 19). The motion designated the Internal Services Department (ISD) as the lead department responsible for coordinating the County's efforts on all community broadband infrastructure and residential service initiatives to close the digital divide. The motion also included several directives and instructed the ISD Director to report back to the Board with quarterly progress updates.

Attached for your review is the fourth quarterly update.

If you have any questions, please contact me at (323) 267-2101.

SH:sh

c: Executive Office, Board of Supervisors
        Chief Executive Office
        County Counsel
        Department of Public Works
        Department of Economic Opportunity

Attachment

COUNTY OF LOS ANGELES
INTERNAL SERVICES DEPARTMENT
INVESTMENTS TO ACCELERATE DIGITAL EQUITY

QUARTERLY PROGRESS REPORT
November 2022

On November 16, 2021, the Board of Supervisors (Board) approved a motion to invest in immediate and longer-term efforts to provide affordable and reliable high-speed internet services to underserved communities impacted by the digital divide.[1] As directed in the motion, the Internal Services Department has submitted quarterly progress reports dated February 2, 2022[2], May 13, 2022[3], and August 11, 2022. [4] This is the fourth quarterly progress report.

Directive #1: Establish the County's lead department.	
Directive	Status
a. Designate the Internal Services Department (ISD) as the lead department responsible for ensuring the County's efforts on all community broadband infrastructure and residential service initiatives to close the Digital Divide are coordinated and aligned under the County's Digital Divide Action Team, which is comprised of representatives from all County Departments and the Chief Executive Officer's Chief Information Office (CIO).	Completed
Directive #2: Conduct a Countywide campaign on financial subsidy programs.	
Directive	Status
a. Instruct the Chief Executive Office (CEO), in consultation with ISD, to identify funding for a countywide promotional campaign to inform and educate constituents about financial subsidy programs that will assist with the costs of computers and internet service.	Completed

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[1] Los Angeles County Board of Supervisors, Statement of Proceedings for the Regular Meeting, November 16, 2021

[2] 1st ISD Quarterly Update - Investments to Accelerate Digital Equity, February 7, 2022

[3] 2nd ISD Quarterly Update - Investments to Accelerate Digital Equity, May 13, 2022

[4] 3rd ISD Quarterly Update - Investments to Accelerate Digital Equity, August 11, 2022

Directive #2: Conduct a Countywide campaign on financial subsidy programs.	
Directive	Status
b. Instruct ISD through the Delete The Divide initiative to coordinate the countywide promotional campaign and subsidy programs, specifically the Federal Emergency Broadband Benefit. Additionally, the campaign should encourage the participation of all County Departments and, as appropriate, collaborations with internet service providers, telecommunication companies, school districts, regional consortia, community-based organizations, non-profits, and ethnic and hyper-local media. Outreach must be conducted in the County's multiple threshold languages.	Completed *Phase1: EBB promotion* In Progress *Phase 2: ACP Promotion*

2(b) Phase 2 Promotional Campaign: Affordable Connectivity Program

On May 12, 2021, the Federal Communications Commission (FCC) launched the Emergency Broadband Benefit (EBB) Program to help families struggling to afford internet service during the COVID-19 pandemic. The $3.2 billion program provided qualifying households with a monthly subsidy of up to $50 for broadband service and a one-time subsidy up to $100 for the purchase of a computer, laptop or tablet. Eligible households on Tribal lands received a monthly broadband discount of up to $75.

On December 6, 2021, ISD administered a countywide promotional campaign to increase awareness of the EBB and encourage residents to enroll in the program (2.5 weeks after Board approval of the motion on November 16, 2021). FCC data based on zip codes indicated that new EBB enrollments reached 43,219 in December 2021.[5] This was a 43% increase from the previous month total of 30,041. It was also the highest monthly increase in new enrollments since the early stages of the program and reflected a spike among declining enrollments over the preceding months. Overall, household enrollments totaled 354,657. The campaign was limited in duration to only 3 weeks because the EBB enrollment deadline was December 30, 2021.

On December 31, 2021, the EBB was replaced by the $14 billion Affordable Connectivity Program (ACP). Under this new program, qualifying households can receive a monthly subsidy of up to $30 for broadband internet service and a one-time subsidy of up to $100 for the purchase of a computer, laptop or tablet. The monthly broadband discount for eligible households on Tribal lands remains at a maximum of $75. Additionally, the ACP expanded the eligibility criteria and more households now qualify for subsidy benefits.

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[5] Enrollments may vary from actual counts because some zip codes are shared by adjacent counties.

An estimated 1.6 million households are eligible for ACP in Los Angeles County.[6] In April 2022, ISD launched a second countywide promotional campaign. Household enrollments now total more than 574,000 (a 72% increase since December 2021).

The following is a list of the 10 California counties with the highest enrollments as reported in October 2022:

County	Total Households	ACP Eligible Households	Eligibility Percentage	ACP Enrolled Households	Enrollment Percentage
Los Angeles	3,316,794	1,646,205	50%	574,801	35%
San Bernardino	636,041	341,110	54%	131,745	39%
San Diego	1,125,285	453,454	40%	123,719	27%
Riverside	724,894	360,381	50%	118,381	33%
Orange	1,037,494	397,766	38%	108,232	27%
Kern	270,281	155,323	57%	71,581	46%
Sacramento	543,026	248,783	46%	70,113	28%
Fresno	307,908	176,750	57%	61,929	35%
Alameda	577,177	209,926	36%	41,001	20%
Santa Clara	640,216	204,684	32%	37,674	18%

Source: California Broadband for All

Over 1 million eligible households have yet to sign up for the ACP. A common concern and well-documented issue preventing thousands of households from internet adoption is the lack of a computer device. The ACP will reimburse participating internet service providers up to $100 if they supply a connected device to an eligible household. Each household is limited to a single device discount and must pay more than $10 but less than $50 for the device. This $100 benefit is only available through the participating internet service provider. The device must be a laptop, desktop computer or tablet. It is not applicable to cell phones, large phones, or "phablets" that can make cellular calls.

According to FCC records, only one broadband provider serving Los Angeles County is offering connected devices that will allow residents to apply for the one-time $100 purchase subsidy.[7]

The County's ACP promotional campaign has referred people to resources to borrow and purchase computer equipment but will soon assist in providing laptops to residents in need. ISD administered a competitive solicitation to procure devices for ACP-eligible households and entered a purchase agreement with Human I-T, a non-profit social enterprise headquartered in Los Angeles. The agreement includes provisions for community relations, needs assessments, technical support, and digital literacy training. The deployment of free and discounted laptops will begin in December 2022.

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[6] California Broadband for All: ACP Enrollment Tracker

[7] FCC Affordable Connectivity Program: Broadband Providers Offering Connected Devices in California

Directive #3: Expand and/or enter into new agreements with the County's existing broadband and/or carrier agreements for public access and use.	
Directive	Status
a. Instruct and authorize ISD to negotiate agreements with assistance from County Counsel and input from the CEO, with internet service providers and telecommunication companies and if the proposed agreement can be shown by ISD to be in the County's best interest, return to the Board for approval to execute new agreements or amend existing agreements.	In Progress

3(a) Negotiate Agreements with Internet Service Providers

ISD has been contacted by regional internet service providers and telecommunication companies willing to work with the County of Los Angeles to enhance broadband infrastructure. However, for business reasons, they have decided not to participate in the competitive solicitation process per Directive 4(b). These companies have presented fiber and wireless solutions to deliver low-cost, high-speed internet services to underserved communities ranging from no capital investments from the County to network lease options. As of the date of this report, ISD has not received written proposals from any company or negotiated agreements. Discussions are ongoing.

Directive #4: Provide options for internet solutions, including cost estimates and timeline, that meet the digital needs of our most vulnerable residents: affordability, sustainability, and connectivity to high-speed, quality service.	
Directive	Status
a. Authorize ISD to amend its agreement, as needed, with the contractor that assisted in the development of its report to the Board in response to Item 45G of the August 31, 2021, Agenda to perform additional analysis for the options identified in the aforementioned report and provide program development services for future solicitations.	Completed
b. Instruct ISD to administer a competitive solicitation to acquire a Managed Service Provider to coordinate and manage the implementation of the Community Broadband Network. The scope of work should include, but not be limited to, project management, infrastructure design, system integrations, performance requirements, equipment testing and maintenance, administration of resources, and customer support services.	Completed

4(b) Solicitation for Managed Service Provider(s)

In Los Angeles County, the highest concentration of households that lack internet service are in underserved and low-income communities. The County is not currently equipped or positioned to carry out the logistics necessary to enable internet services in these residential areas. Thus, ISD was instructed to administer a competitive solicitation to acquire one or more Managed Service Providers to implement and manage Community Broadband Networks.

The Community Broadband Networks are intended to be 5-year demonstration projects to provide free broadband access through public-private partnerships. The project locations will be unserved and underserved communities in Los Angeles County where an average of 20% or more of the households lack internet service based on data from the United States Census Bureau's American Community Survey.

In March 2022, a Request for Statement of Qualifications (RFSQ) was released to establish a pool of pre-qualified Managed Services Providers to deliver the Community Broadband Networks. The solicitation required that respondents be able to provide high-speed, high-quality broadband internet service to each subscriber residence using wireless technology, fiber or a combination of both. The qualification process is open ended such that vendors can submit statements of qualifications at any time through September 13, 2027. Should any additional vendor submit a response to the RFSQ, the company will be subject to the RFSQ requirements and evaluation process to determine whether or not it will be recommended for pre-qualification. This process is not an indication or assurance that any pre-qualified company will be selected as a Managed Service Provider.

On September 13, 2022, the Board of Supervisors authorized ISD to award and execute master agreements with 9 pre-qualified companies: ICCN, Insight, Kajeet, Smartwave, NetSync, AT&T, T-Mobile, Motorola, and Deloitte Consulting, LLP.[8] Each agreement is for an initial five-year term, with five one-year extension options, for a maximum total term of 10 years. Additionally, the Board authorized ISD to execute master agreements with new vendors as they become qualified.

Recently, ISD received three additional responses to the RFSQ, which are currently being evaluated. Another two companies have indicated intent to submit a response within the coming weeks.

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[8] Los Angeles Board of Supervisors, Adopted Board Letter: Request for Approval to Award and Execute Community Broadband Network Services Master Agreements, September 13, 2022

Directive #4: Provide options for internet solutions, including cost estimates and timeline, that meet the digital needs of our most vulnerable residents: affordability, sustainability, and connectivity to high-speed, quality service.	
Directive	Status
c. Instruct ISD to administer a competitive solicitation and negotiate agreements for public-private partnerships to construct and configure the Community Broadband Network.	In Progress

4(c) Solicitation for Public-Private Partnerships

In coordination with the above-mentioned RFSQ, only the pre-qualified companies with an executed master agreement will be eligible to bid on a work order solicitation to deploy Community Broadband Networks as a Managed Service Provider. Shovel-ready projects and cost estimates will be identified through this competitive work order solicitation process.

ISD has identified communities in each Supervisorial District where 20% or more of the households lack internet service. The census tracts where these households are located are referred to as Digital Divide Areas. Maps of these areas are shown on Attachment A.

The process and plan for identifying a prospective demonstration project includes:

• **Internet Adoption**. Utilize Census data and geospatial tools to identify Digital Divide Areas.

• **Public Assets**. Identify and map the locations of County-owned infrastructure that can facilitate the rapid deployment of a Community Broadband Network; neighborhoods where critical assets are readily available, such as buildings, street poles, and radio towers.

• **Equity and Inclusion**. Assess the extent to which a neighborhood aligns with the objectives of the County's Anti-Racism, Diversity, and Inclusion Initiative.

• **Governmental Processes.** Factor the impact of local ordinances and permit requirements on broadband deployment relating to Issues such as right of way access, telecommunications design, and construction standards.

• **Financial Viability.** Assess funding options that could support capital investments, including Federal and State grants, County and municipal funds, philanthropic contributions, and profit-sharing models.

• **Regional Stakeholders.** Obtain feedback from key regional stakeholders, including Councils of Governments, City Councils, and Town Councils.

- **Partnership Agreement(s)**. Enter a partnership agreement with the local city or jurisdiction through a signed Memorandum of Understanding, which establishes a working relationship to commit resources and collaborate on funding opportunities in support the demonstration project.

- **Board Office Review.** Present proposed demonstration project area(s) to the respective Board Supervisor Office for final review and approval.

It should be noted that in February 2022, the County and City of Los Angeles signed a Memorandum of Understanding (MOU) that established an agreement to deploy our competitive advantages (including assets and operations) to bring new public connectivity infrastructure to communities and achieve alignment on projects and funding opportunities. The Los Angeles County Office of Education became an additional party to the MOU in April 2022, representing 80 public school districts. On October 31, 2022, the County and City of San Fernando signed a similar MOU. Additionally, on November 9, 2022, the City of Maywood City Council voted unanimously to enter an MOU with the County. ISD has provided several other cities with a copy of the MOU and they are currently assessing the opportunity to enter an agreement with the County.

ISD continues to meet with public agencies and stakeholder groups interested in partnerships to commit resources toward digital equity and inclusion. Collaborative discussions are being held with various municipalities, academic networks, healthcare providers, regional consortia and coalitions, community-based organizations, and numerous support associations.

Directive #4: Provide options for internet solutions, including cost estimates and timeline, that meet the digital needs of our most vulnerable residents: affordability, sustainability, and connectivity to high-speed, quality service.	
Directive	Status
d. Instruct CEO, in consultation with ISD and [Department of Public Works], to identify funding from Federal, State and/or County sources to support a five (5) year proof of concept model for a Community Broadband Network. Under the coordination of ISD, this pilot will utilize public-private partnerships and a Managed Service Provider for the deployment of a fully functional network of Citizen Broadband Radio Service and/or millimeter wave technologies to deliver reliable high-speed internet service to 12,500 households in digital divide target areas.	In Progress

4(d) Funding for Community Broadband Network

ISD's Quarterly Progress Report dated August 11, 2022 included a review of available funding from the Infrastructure Investment and Jobs Act and State of California. The major grants of interest to the County of Los Angeles are competitive with varying filling periods

and criteria. As new grant opportunities become available, the County will need to be efficient in its administrative review and approval processes to ensure the timely submission of grant applications. The County will also need dedicated program staff to oversee grant applications, project deployment and grant management compliance.

The following are the latest funding updates:

<u>American Rescue Plan Act</u>   **$56 Million Allocation**

On September 13, 2022, the Board of Supervisors approved the allocation of $56 million from the American Rescue Plan Act (ARPA) to support Community Broadband Network demonstration projects in Los Angeles County. Pursuant to ARPA requirements, the funds must be obligated by 2024 and expended by the end of 2026.

<u>Local Agency Technical Assistance Grant</u>   **$320,000 Award**

The California Public Utilities Commission (CPUC) established the Local Agency Technical Assistance (LATA) grant program to support government entities with eligible pre-construction work that facilitates broadband network projects benefitting areas in need. Pre-construction costs may be tied to a broadband infrastructure project designed to provide service to unserved or underserved households and businesses, and that are designed to, upon completion, reliably meet or exceed symmetrical download and upload speeds of 100 Megabits per second. Examples of reimbursable expenses include consultant or staff time for conducting needs assessments, market studies, environmental studies, engineering studies or reports, network design, broadband strategic plans, business plans, and community-based organization services.

On August 1, 2022, the CPUC began accepting applications for LATA grants. ISD submitted a grant application on August 8, 2022, for pre-construction technical support that facilitates Community Broadband Network projects in parts of East Los Angeles, South Los Angeles and adjacent unincorporated areas. Pursuant to grant guidelines, applicants are required to submit a letter of support demonstrating collaboration between overlapping local agency jurisdictions. ISD's grant application included letters of support from Los Angeles Mayor Eric Garcetti, General Manager Miguel Sangalang of the City's Bureau of Street Lighting, and Dr. Debra Duardo, Superintendent of the Los Angeles County Office of Education.

On October 6, 2022, ISD was awarded a LATA grant totaling $320,000. Pursuant to a Board's Motion on November 1, 2022, ISD formally accepted the CPUC's grant on behalf of the County on November 2, 2022. As of the date of this report, ISD is the only government agency in Los Angeles County to be awarded a LATA grant.

The CPUC received 82 applications and awarded 52 grants.[9] ISD has provided support letters for LATA grant applications filed by the City of Los Angeles (Destination

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[9] [LATA Grant Applications and Awards](#)

Crenshaw), South Bay Cities Council of Government, City of Lancaster, and City of Pomona.

California Advanced Services Fund   **$3,572,800 Request**

The California Advanced Services Fund (CASF) Adoption Account is authorized $20.024 million for fiscal year 2022-2023 to provide grants to increase publicly available or after-school broadband access and digital inclusion. The application cycle deadlines are July 1, 2022, January 1, 2023, and every July 1 and January 1 thereafter until funds are exhausted. Eligible projects include: 1) Digital Literacy Projects and 2) Broadband Access Projects.

On July 1, 2022, ISD applied for a CASF Adoption Account Digital Literacy Grant totaling $5,221,080. ISD amended the requested amount to $3,572,800 after communications with the CPUC. As of the date of this report, the application is still under review. The CASF website indicates that it has received 99 applications totaling $19,922,871.68.[10]

ReConnect Loan and Grant Program

The ReConnect Program offers loans, grants, and loan-grant combinations to facilitate broadband deployment in rural areas that currently do not have sufficient access to broadband.[11] Loans and grants may be used to pay for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide broadband service in eligible rural areas. The maximum grant amount that can be requested is $25 million. Companies, cooperatives, and state, local, Tribal, and territorial governments may all apply. The program is administered by the United States Department of Agriculture (USDA).

The ReConnect Program defines rural as, "any area that is not located in a city, town, or incorporated area with a population of greater than 20,000 inhabitants or an urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000 inhabitants." Ineligible service areas are illustrated on a mapping tool found on the ReConnect website.[12] Although Northern Los Angeles County is often considered to have rural areas, the largest population areas of North County are ineligible for this particular program based on the ReConnect maps. However, the maps do indicate that there are significant portions of unincorporated areas in North County that are eligible and some of these locations are Digital Divide Areas.

ISD is actively monitoring other funding opportunities to support North County as well as other areas of the County impacted by the digital divide.

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[10] CASF Adoption Account: Applications Submitted July 1, 2022

[11] USDA ReConnect Loan and Grant Program

[12] ReConnect Program Service Area Map

Directive #4: Provide options for internet solutions, including cost estimates and timeline, that meet the digital needs of our most vulnerable residents: affordability, sustainability, and connectivity to high-speed, quality service.	
Directive	Status
e. Delegate authority to the CEO to hire a consultant to conduct a financial and technical feasibility study for a County-administered municipal broadband service. The study should assess capital costs and consumer pricing models that will enable reliable high-speed internet access for households in digital divide target areas. The study should also consider existing County assets and licensing agreements as well as the utilization of public and private fiber optic and wireless network infrastructures that can be included in the County-administered strategy.	In Progress

4(e) Feasibility Study for County-Administered Broadband Service

The Chief Executive Office has selected Magellan Advisors to conduct a feasibility study for County-administered municipal broadband services in the eight communities of need as identified using the County's Equity Tool:

Community	Total households	Households w/o Internet		Households w/o computer		SVI	JENI	JESI	COVID impact
Unincorporated East LA	30,723	8,488	27.6%	4,277	13.9%	High-Highest	Moderate - Highest	Low - Highest	High-Highest
Los Angeles - Westlake	22,662	7,244	32.0%	2,498	11.0%	Moderate - Highest	Moderate - Highest	Moderate - Highest	Moderate - Highest
Los Angeles - Pico Union	12,515	3,835	30.6%	1,355	10.8%	Highest	Low - High	Low - High	Highest
City of Long Beach	11,259	3,196	28.4%	1,409	12.5%	Highest	Moderate - Highest	High - Highest	Highest
Los Angeles - Panorama City	15,191	3,142	20.7%	1,960	12.9%	High	High	Lowest	High
Los Angeles - Watts	10,512	3,088	29.4%	1,299	12.4%	Highest	Moderate - Highest	Low - Highest	Highest
Los Angeles - Crenshaw	5,570	1,501	26.9%	613	11.0%	Low - Highest	Low - Highest	Low - Highest	Low - Highest
City of Lancaster	4,248	1,457	34.3%	1,187	27.9%	High	Highest	Highest	High

Note:

SVI - Social Vulnerability Index based on 15 census variables grouped in four themes; socioeconomic status, household composition, minority status and language, housing and transportation.

JENI - Justice Equity Need Index used to assess areas most negatively impacted by criminalization and detention-first policies.

JESI - Justice Equity Service Index used to identify needs for justice-related community-based supports and services in low to highest service areas to inform where to shift investments and capacity-building supports towards equity and justice.

The feasibility analysis will include:

- Market analysis to serve as the basis for determining penetration and adoption rates, foreseeable competition, and sensible pricing for services provided;

- Service and infrastructure analysis of the incumbent Internet service providers and existing broadband infrastructure within the identified communities of need. The analysis will identify service models that could be utilized in the region. Outcomes will include geographic information system maps detailing the physical extent of fiber-optic lines, service areas, incumbency, and level of service provided;

- Site analysis to discover whether existing public assets and/or land can be used to better facilitate network construction and operation and availability of public and private fiber optic and wireless infrastructure. Includes a cost model for the network, including one-time and ongoing capital expenditures, operations, network operations, field services, staffing, billing, and customer service. The analysis will also delineate items such as customer growth rates, competitive pricing schedules, and overall financial sustainability; and

- Programming and finance evaluation of financing options that are available to the region for funding the construction, implementation, and subsequent operation of the broadband infrastructure and services.

COUNTY OF LOS ANGELES
DIGITAL DIVIDE AREAS

All Supervisorial Districts

Supervisorial District 1
Total Households: 607,934
Households With No Internet Access: 95,626
Median Household Income: $60,433
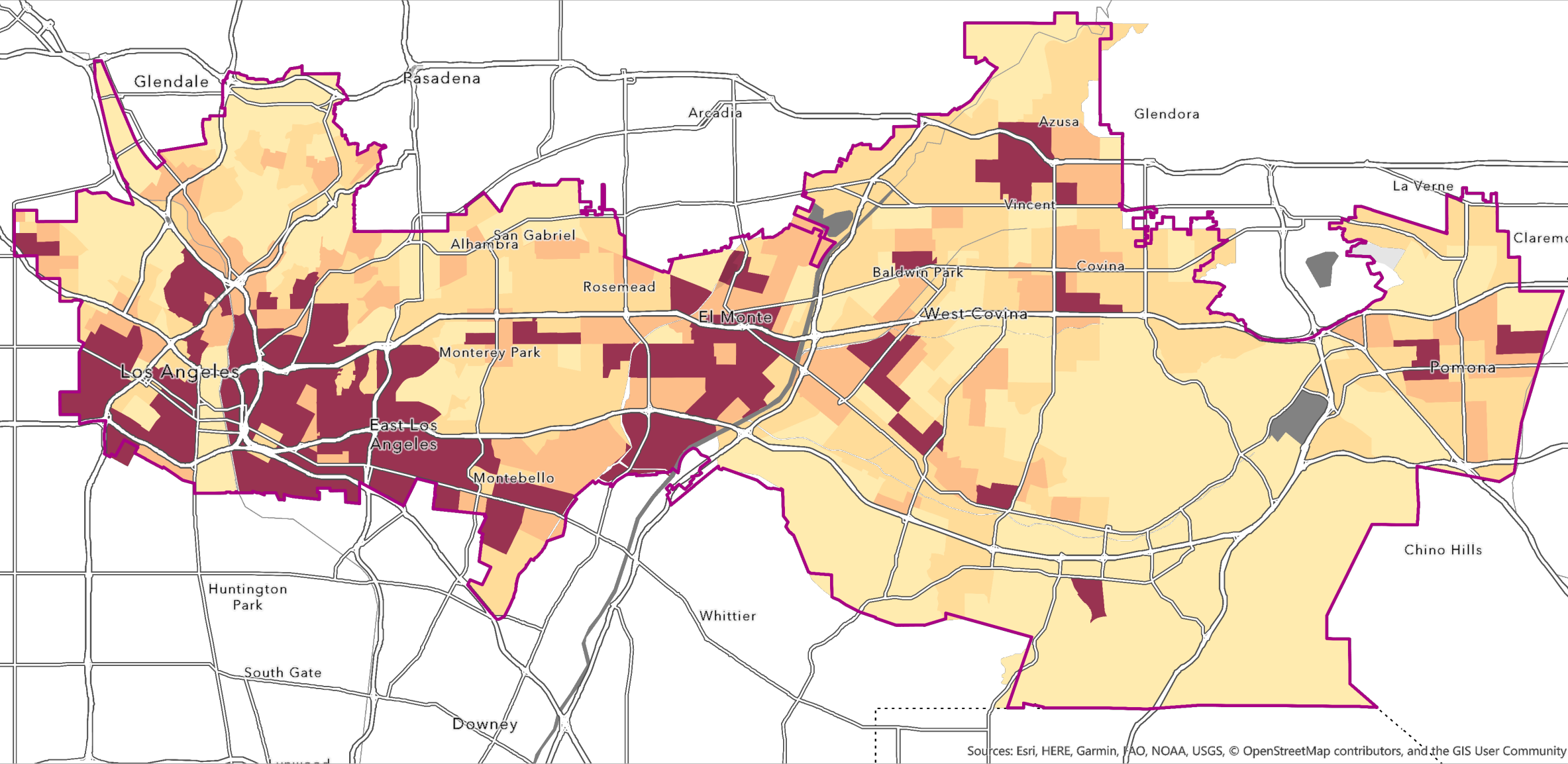
Digital Divide Areas - Supervisorial District 1
Total Households: 160,337
Households With No Internet Access: 46,662
Median Household Income: $41,449
Households in Census Tracts With Median Income Below $50K: 124,135
Households in Census Tracts With Median Income Above $50K: 36,202

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Percent of Households With No Internet Access

- 10% or Less
- 10.1% - 15%
- 15.1% - 20%
- 20.1% - 100%
- Nonresidential or No Data
- Supervisorial District - 2021

Supervisorial District 2
Total Households: 653,357
Households With No Internet Access: 100,577
Median Household Income: $49,632
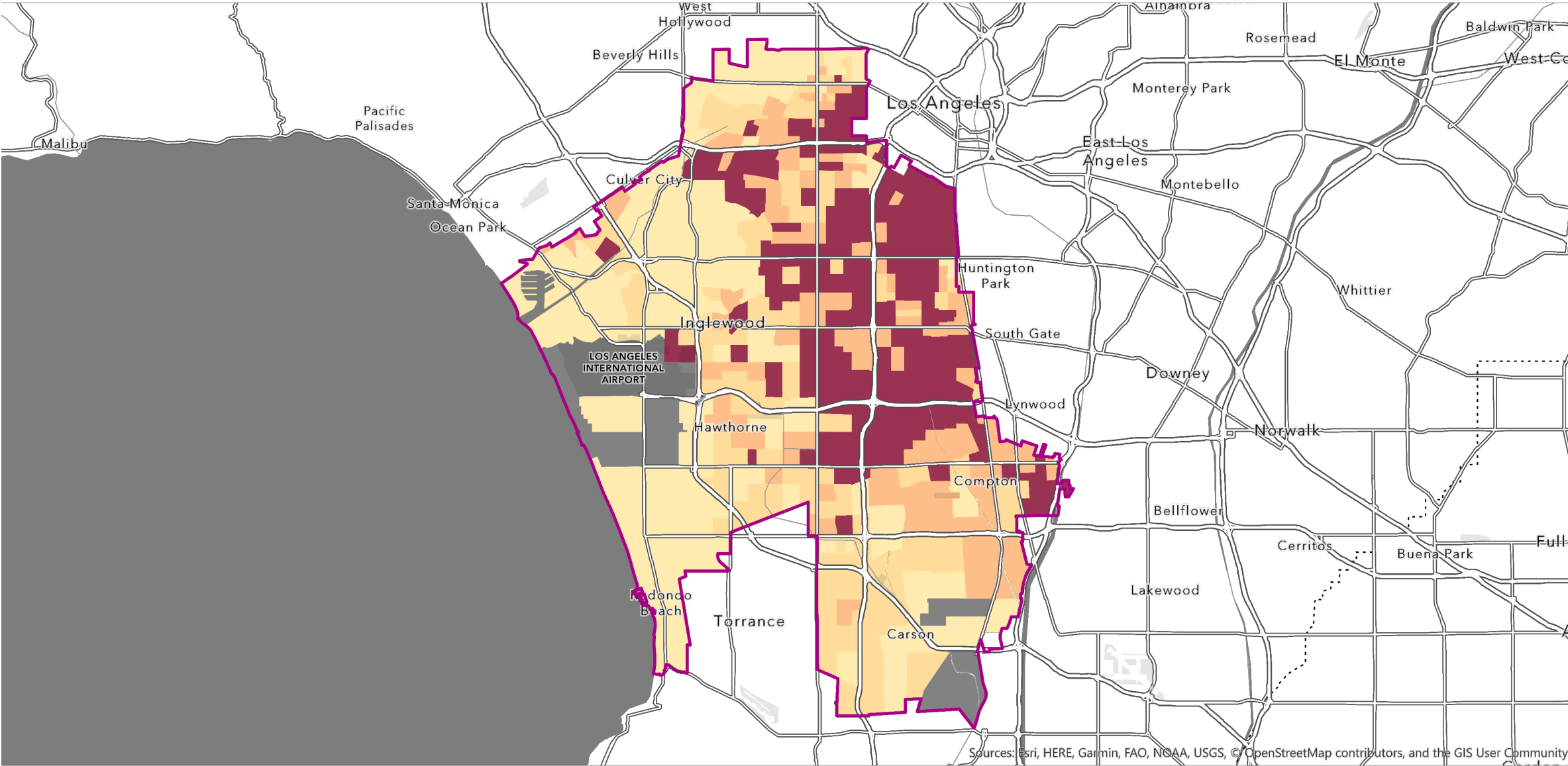
Digital Divide Areas - Supervisorial District 2
Total Households: 203,383
Households With No Internet Access: 53,111

Median Household Income: $40,116
Households in Census Tracts With Median Income Below $50K: 169,280
Households in Census Tracts With Median Income Above $50K: 34,103

Percent of Households With No Internet Access

- 10% or Less
- 10.1% - 15%
- 15.1% - 20%
- 20.1% - 100%
- Nonresidential or No Data
- Supervisorial District - 2021

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
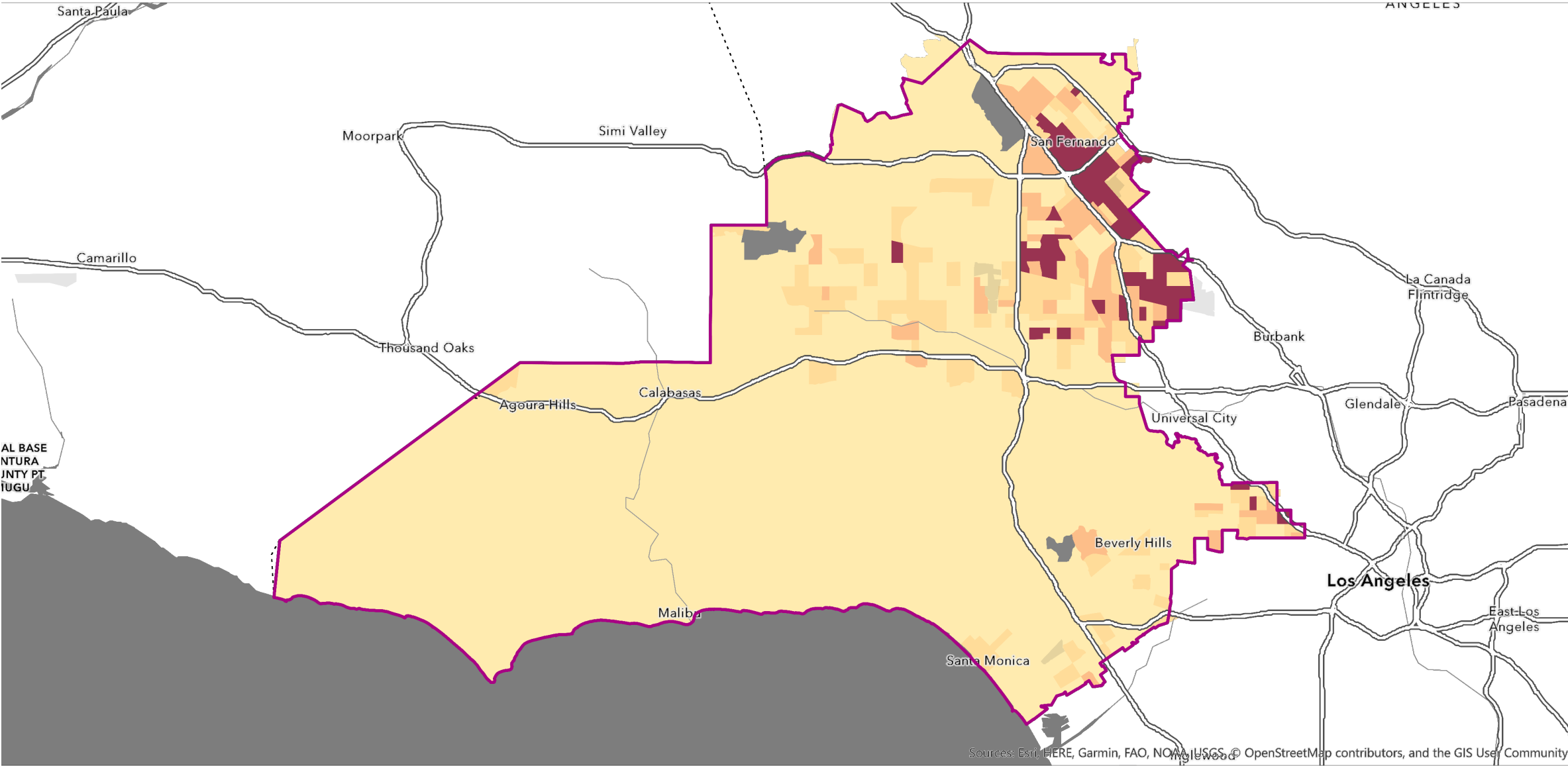
Supervisorial District 3
Total Households: 763,283
Households With No Internet Access: 68,496
Median Household Income: $77,386

Digital Divide Areas - Supervisorial District 3
Total Households: 57,214
Households With No Internet Access: 14,673

Median Household Income: $41,593
Households in Census Tracts With Median Income Below $50K: 39,714
Households in Census Tracts With Median Income Above $50K: 17,500

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Percent of Households With No Internet Access

| 10% or Less | 10.1% - 15% | 15.1% - 20% | 20.1% - 100% | Nonresidential or No Data | Supervisorial District - 2021 |

Supervisorial District 4
Total Households: 649,467
Households With No Internet Access: 81,795
Median Household Income: $66,116
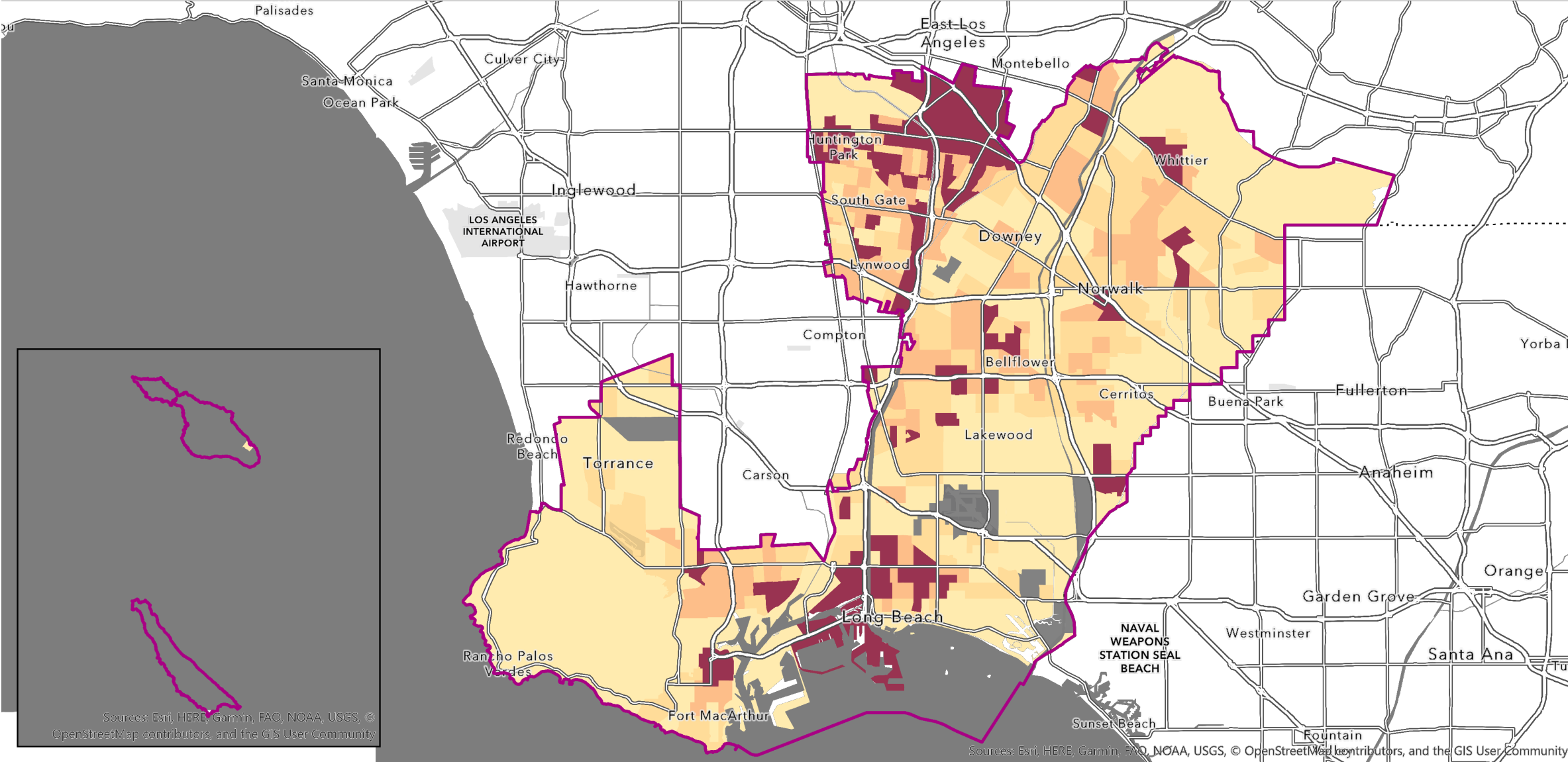
Digital Divide Areas - Supervisorial District 4
Total Households: 96,869
Households With No Internet Access: 23,720

Median Household Income: $44,025
Households in Census Tracts With Median Income Below $50K: 75,972
Households in Census Tracts With Median Income Above $50K: 20,881

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the G S User Community

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Percent of Households With No Internet Access

10% or Less   10.1% - 15%   15.1% - 20%   20.1% - 100%   Nonresidential or No Data   Supervisorial District - 2021
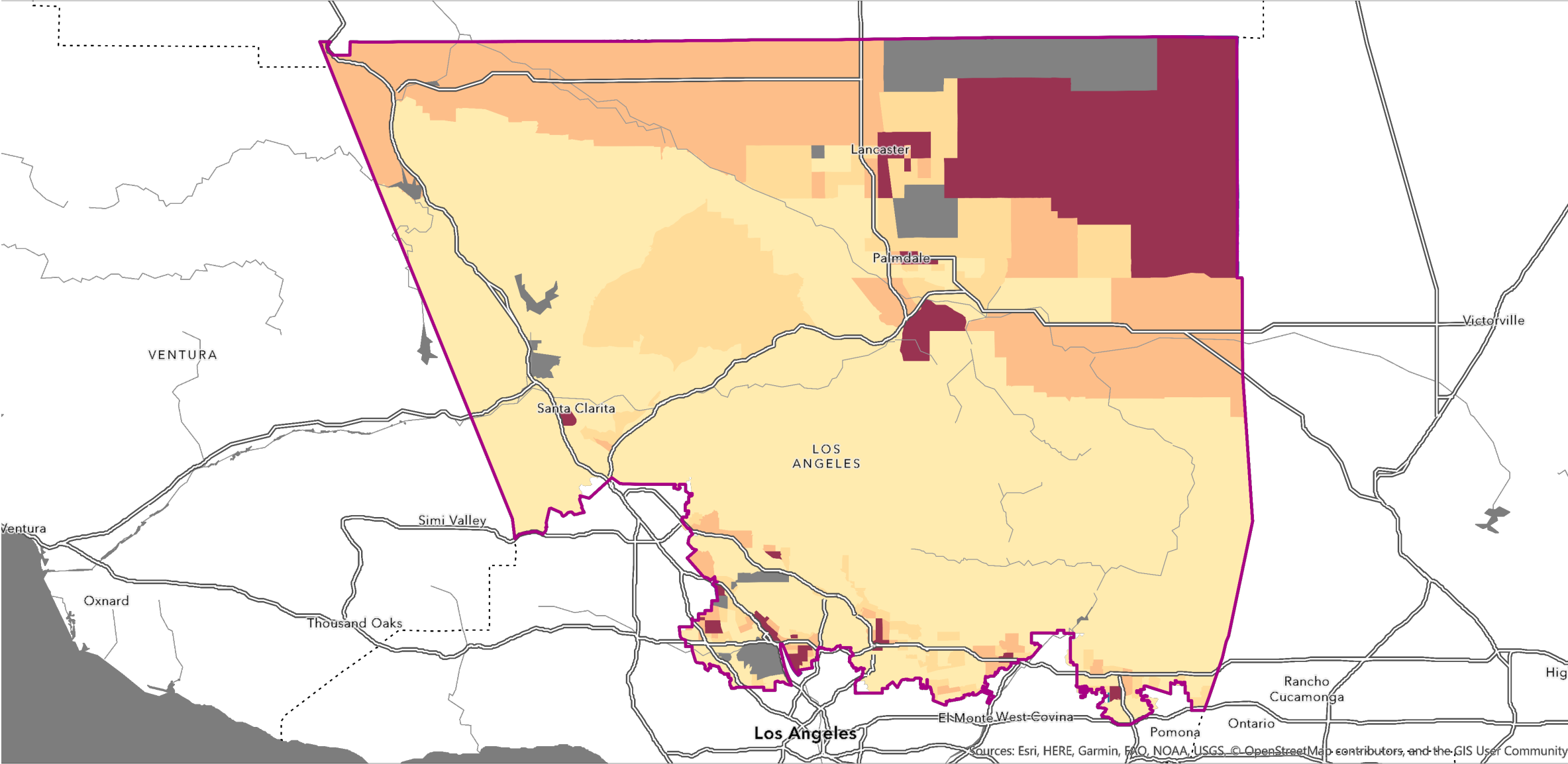
Supervisorial District 5
Total Households: 641,109
Households With No Internet Access: 70,070
Median Household Income: $81,424

Digital Divide Areas - Supervisorial District 5
Total Households: 80,444
Households With No Internet Access: 20,651

Median Household Income: $42,337
Households in Census Tracts With Median Income Below $50K: 60,850
Households in Census Tracts With Median Income Above $50K: 19,594

Percent of Households With No Internet Access

10% or Less	10.1% - 15%	15.1% - 20%	20.1% - 100%	Nonresidential or No Data	Supervisorial District - 2021

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community