

The California Lifeline Program

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Executive Summary

California's Lifeline program is widely recognized as one of the most successful state Lifeline programs and therefore constitutes an important case for the MEDIA project to study. This report examines the history and characteristics of California Lifeline, including historical participation rates, the program's targeting efficiency, and barriers to enrollment. It identifies the following three main takeaways.

Predominance of wireless participants

Today's California Lifeline program, like the Federal Lifeline program, is overwhelmingly a wireless program. Over 80% of the recipients opt to receive a discount on their wireless subscription. The number of wireline Lifeline recipients in California has steadily declined, from 3 million participants in 2007 to fewer than 250,000 in 2021.

Divergent participation rates across California

Participation rates differ significantly across California. At the end of June 2021, the mean CA Lifeline participation rates across Public Use Microdata Areas (PUMAs) was 23.9%. However, there was a wide variation across PUMAs, ranging from 5.9% in Contra Costa / San Ramon to 53.6% in South Central L.A. / Compton. Our analysis of socio-economic and demographic variables revealed that participation was greater in PUMAs where there were higher poverty levels, lower internet connectivity, higher proportion of African American population, and higher unemployment rates.

Increasing participation rates through automated renewals

Our study suggests that automated enrollments and renewals through direct connections with other public-assistance program databases has the potential to increase participation rates. We found that four qualification methods account for over 90% of all CA Lifeline qualifications: Medicaid/Medi-Cal (51.6%), Supplemental Nutrition Assistance Program (32.1%), Income (10.2%), and Supplemental Security Income (4.1%). According to California Public Utilities Commission (CPUC) staff, the state Lifeline's Third Party Administrator (TPA) began implementing automatic renewals for CalFresh (SNAP) recipients in 2021, confirming their eligibility directly via "CalFresh Confirm." Generalizing this practice could help promote participation but is complicated as it involves multiple different parties and potentially conflicts with privacy law (e.g., HIPAA).

1. Background and Program Overview

California Lifeline is a state subsidy program administered by the California Public Utilities Commission (CPUC) which provides discounts on wireline and wireless phone services to qualified low-income households. It is similar, but independent from the Federal Lifeline program. Its qualification criteria are somewhat broader than those of Federal Lifeline, and recipients may participate in either or both. Currently, the state of California provides a monthly flat rate service discount of up to \$16.23 in addition to the Federal Lifeline program which provides a monthly discount of \$9.25.¹ As of June 2021, approximately 1.3 million Californians participated in this program, among which approximately 1 million were wireless recipients. The vast majority of recipients, roughly 1.26 million or 94.5%, received discounts from both the State and Federal Lifeline programs, and 73,000 received the California discount only in 2021 (see Table 1).

Table 1: State and Federal Lifeline recipients in California

CA Lifeline Recipients	2019		2020		2021	
Fed and State Lifeline	1,585,251	94.05%	1,564,163	94.78%	1,259,370	94.50%
CA Lifeline Only	95,773	5.68%	85,342	5.17%	72,973	5.48%
Unknown	4,529	0.27%	874	0.05%	329	0.02%
Grand Total	1,685,553	100%	1,650,379	100%	1,332,672	100%

Source: (authors' calculations based on CPUC data)

The California Lifeline program was initiated by the Moore Universal Telephone Service Act (Moore Act), enacted by the Legislature in 1983 “to provide low-income households with access to affordable basic residential telephone service” and “to offer high quality basic telephone service at affordable rates to the greatest number of California residents.”² The California Lifeline program was implemented the following year, through Decision (D.) 84-04-053. California Lifeline is carried out by CPUC in compliance with the regulations of the Federal Communications Commission (FCC) Lifeline as well as the Moore Act.

In 2014, with the rise of mobile telephony and the decline in California's Lifeline participation rates, the CPUC made a major revision to the Lifeline program by extending the price cap on Lifeline wireline services and expanding benefits to include wireless services.³ The inclusion of wireless service resulted in a rapid increase of participation and brought new wireless service providers into the program. According to the CPUC (2020), “actual program expenditures were less than \$200 million for providing telephone discounts to approximately one million California Lifeline

¹ See “California Lifeline Eligibility” (<https://www.cpuc.ca.gov/consumer-support/financial-assistance-savings-and-discounts/lifeline/california-lifeline-eligibility>) and “FCC Lifeline Support for Affordable Communications” (<https://www.fcc.gov/lifeline-consumers>)

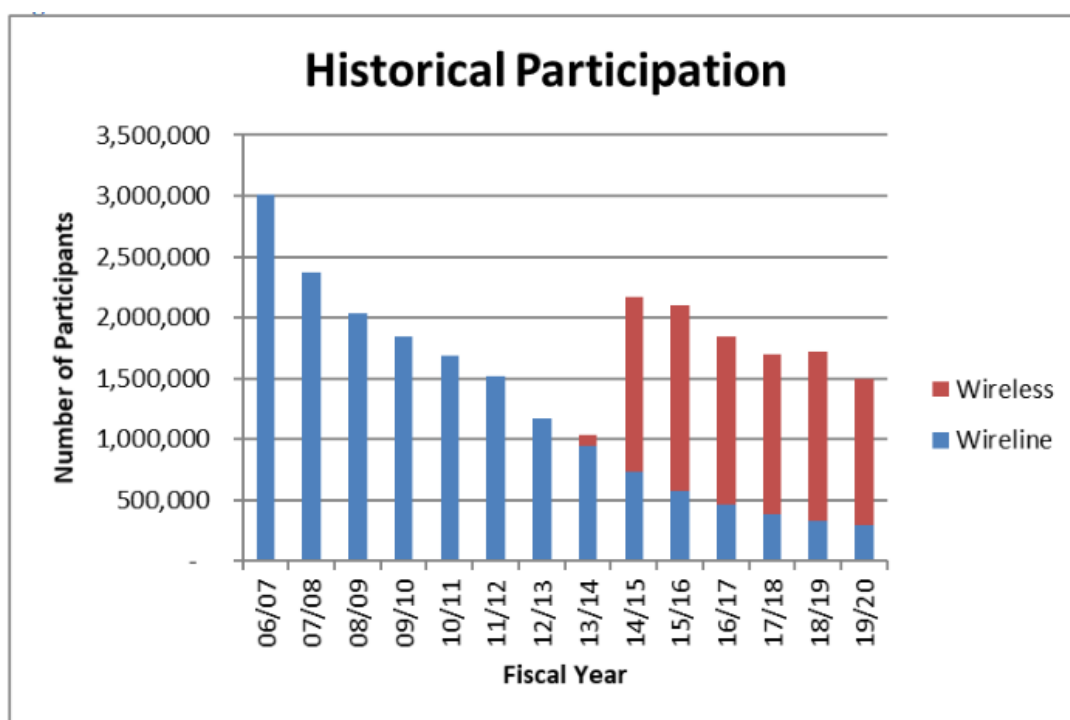
² CPUC. (2020). California Lifeline – State Operations and Local Assistance Update, May Revision Estimate. https://esd.dof.ca.gov/Documents/bcp/2021/FY2021_ORG8660_BCP4057.pdf

³ CPUC. (2014). Order Instituting Rulemaking Regarding Revisions to the California Universal Telephone Service (Lifeline) Program (Decision 14-01-036). <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M086/K541/86541587.PDF>

participants” in fiscal year 2013-14, however after 2014, “this amount has more than doubled to over \$400 million with a total of 1.7 million participants at the end of fiscal year 2017-18”⁴ (p. 3).

Carriers must be approved as Eligible Telecommunication Carriers (ETCs) to qualify for reimbursement of the federal Lifeline discounts they grant customers, although service providers who only receive subsidy from the California Lifeline program are not mandated to be ETCs. The California PUC administers ETC designation, based on requirements such as a carriers’ commitment to provide service and its ability to remain functional, including a Five-Year Service Quality Improvement Plan, as well as commitments to consumer protection, local usage and equal access.⁵ In 2021, California counted 25 carriers (or 68% of California’s ETCs) eligible to provide Lifeline wireline benefits and 12 carriers (32%) eligible to provide Lifeline wireless benefits (Table 2).

Figure 1: Historical Participation Rate of CA Lifeline (2020)
California Lifeline – State Operations and Local Assistance Update, May Revision Estimate



Source: https://esd.dof.ca.gov/Documents/bcp/2021/FY2021_ORG8660_BCP4057.pdf, (p. 51)

⁴ CPUC. (2020). California Lifeline – State Operations and Local Assistance Update, May Revision Estimate. https://esd.dof.ca.gov/Documents/bcp/2021/FY2021_ORG8660_BCP4057.pdf

⁵ CPUC (2006). Resolution T-17002. Adopting Comprehensive Procedures and Guidelines for Eligible Telecommunications Carrier Designation and Requirements for Eligible Telecommunications Carriers. https://docs.cpuc.ca.gov/published/FINAL_RESOLUTION/56844.htm

Today's California Lifeline program is overwhelmingly a wireless program. Over 80% of the recipients opt to receive a discount on their wireless subscription. As figure 1 and table 2 show, the number of wireline Lifeline recipients in California has steadily declined since 2007, from 3 million participants to fewer than 250,000 in 2021. Since the introduction of wireless lifeline discounts in 2014, the number of wireless discount recipients has held roughly constant between 1.25 and 1.5 million. Regardless, the steady decline might be due to several factors including complicated enrollment and/or renewal processes which will be discussed later in more detail.

We note that during the first year of the COVID-19 pandemic, the number of wireline recipients continued to decline, but also that wireless recipients declined sharply to just above 1 million. It is surprising that as the pandemic made telecommunications indispensable, participation in Lifeline declined.

Table 2: California Lifeline participants, by carrier type, and number of carriers by type

Participants by Carrier Type	2019		2020		2021	
Landline	313,483	18.60%	274,772	16.65%	241,567	18.13%
Wireless	1,372,070	81.40%	1,375,607	83.35%	1,091,105	81.87%
Participants Total	1,685,553	100%	1,650,379	100%	1,332,672	100%
Number of ETCs by type	2019		2020		2021	
Landline	27	71.05%	26	70.27%	25	67.57%
Wireless	11	28.95%	11	29.73%	12	32.43%
ETCs Total	38	100.00%	37	100.00%	37	100.00%

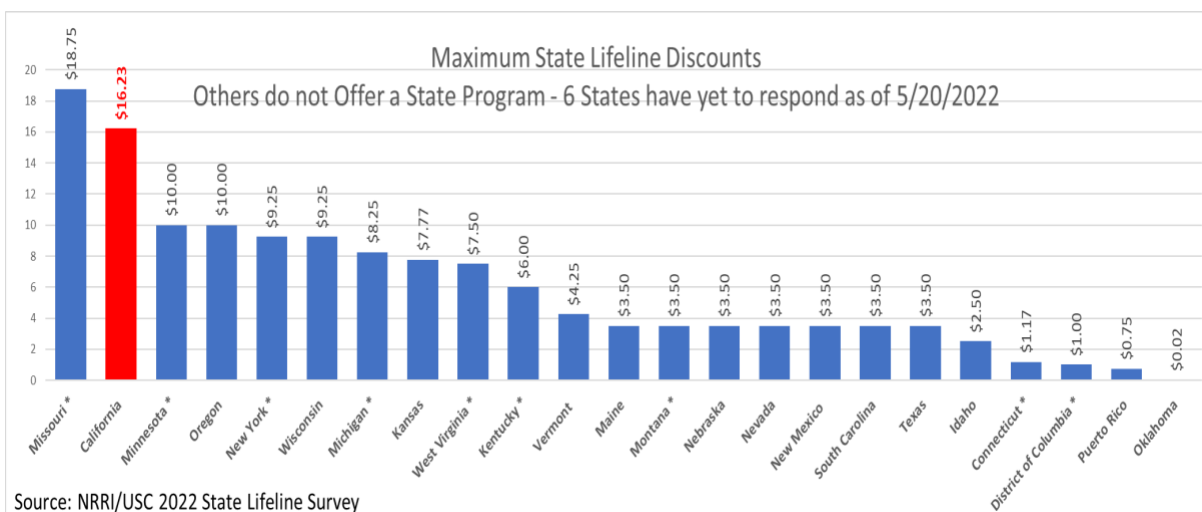
Source: (authors' calculations based on CPUC data)

From 1984 to 2004, individual carriers were responsible for certifying applicants and completing enrollment. In 2005, the CPUC transferred the application, enrollment, renewal, qualification functions to a Third Party Administrator (TPA). In 2020, California administered over 4.12 million eligibility determinations for both the federal and state subsidies through the TPA.⁶ The CPUC had to petition the FCC to get permission to use an outside administrator. The Federal Universal Service Administrative Company (USAC) relies on California's TPA certification but does not compensate the state for performing this service.

⁶ CPUC. (2020). California Lifeline – State Operations and Local Assistance Update, May Revision Estimate. https://esd.dof.ca.gov/Documents/bcp/2021/FY2021_ORG8660_BCP4057.pdf

California stands out as one of the states with the highest participation rate in the Federal Lifeline program, with a 21% participation rate⁷, behind Alaska (24.8%), Oklahoma (23.4%) and DC (22.2%).⁸ A number of reasons have been invoked to explain this performance,⁹ including the size of the CA discount. The most recent published data on state Lifeline discounts dates back to 2013¹⁰, so we partnered with NRRI in April 2022 to survey all state regulatory agencies in the U.S. Based on 47 responses received to date, the 2022 NRRI/USC survey reveals that 26 States currently offer a State Lifeline discount in addition to the Federal discount. California's discount at (\$16.23/month) is the second-most generous, just behind Missouri (\$18.75/month)¹¹. State discounts range from \$0.02/month (Oklahoma) to \$18.75/month (Missouri), with an average of \$5.71 (median = \$3.50).

Figure 2: State Lifeline Discount Amounts¹²



Source: NRRI/USC 2022 State Lifeline Survey (forthcoming)

⁷ Participation rates are calculated as the ratio of actual number of Lifeline participants to the estimated number of eligible households calculated by the authors (see Appendix B for details).

⁸ Based on USAC enrollment data and ACS data, the MEDIA project calculated participation rates according to FCC guidelines which state that households are eligible when any household member is eligible. These differ from USAC's participation data, only considers eligibility of the head of household.

⁹ E.g., Burton, M., Macher, J., & Mayo, J. (2007). Understanding Participation in Social Programs: Why Don't Households Pick up the Lifeline? *The B.E. Journal of Economic Analysis & Policy*, 7(1), (Article 57). <https://doi.org/10.2202/1935-1682.1583>; Hauge, J. A., Jamison, M. A., & Todd Jewell, R. (2008). Discounting telephone service: An examination of participation in the Lifeline Assistance Program using panel data. *Information Economics and Policy*, 20(2), 135–149. <https://doi.org/10.1016/j.infoecopol.2007.12.002>

¹⁰ Lichtenberg, S. (2013). Lifeline and the States: Designating and Monitoring Eligible Telecommunications Carriers (Report Number 13-12; pp. 23–26). NRRI. <https://pubs.naruc.org/pub/FA86C29C-9938-9143-DD91-5838FAF68AEF>

¹¹ Missouri is one of the states that provides a different amount of state discount for Lifeline depending on the technology used by the participant (see footnote 12 for additional detail). \$18.75 discount is provided for voice-only service or voice service with a non-qualifying broadband service and \$14.75 is provided for voice service bundled with a qualifying broadband service (https://psc.mo.gov/Telecommunications/Missouri_USF_Board_1).

¹² For specific details on the programs of states marked with a “*”, see appendix C.

The next sections explore three questions. First, how efficiently does CA Lifeline target program recipients? We explore whether California residents who are eligible for the Lifeline program indeed receive its benefits (i.e., horizontal targeting efficiency¹³). Second, how cost-effective is the administration of the CA Lifeline program? And third, what might be ways to increase participation?

2. Targeting efficiency

a. Eligibility verification system

There are two ways to qualify for the California Lifeline Program: (1) showing enrollment in an eligible public assistance program (i.e., program-based eligibility) or (2) meeting the income threshold (i.e., income-based eligibility).¹⁴ 90% of total participants qualify based on a program, 10% based on their income. The proportion of program-based qualifications rises to over 94% for wireless Lifeline, vs. 70% for landline Lifeline (Table 3).

Table 3: 2021 California Lifeline recipients, by qualification method

Qualification Method	Landline		Wireless only		Total	
Program	169,582	70.20%	1,026,99	94.12%	1,196,574	89.79%
Income	71,979	29.80%	63,790	5.85%	135,769	10.19%
N/A	6	0.00%	323	0.03%	329	0.02%
Grand Total	241,567	100.00%	1,091,105	100%	1,332,672	100%

Source: (authors' calculations based on CPUC data)

Under program-based eligibility, households may receive California Lifeline discounts by providing proof of enrollment in at least one of the eligible public-assistance programs (see Appendix A).¹⁵ In order to qualify for income-based eligibility, the household's total annual gross income should be at or less than the following annual income limits, which represents 150% of the federal poverty level:

¹³ As described in our main report, horizontal targeting efficiency is the extent to which all members of the target group benefit from the program, while vertical targeting efficiency evaluates whether a program delivers benefits to its intended beneficiaries.

¹⁴ See "California Lifeline Program Guidelines" (https://californialifeline.com/en/eligibility_requirements)

¹⁵ CPUC. (n.d.) California Lifeline Eligibility. <https://www.cpuc.ca.gov/lifeline/>

Table 4: California Lifeline income-based eligibility criteria (Effective June 1, 2022 to May 31, 2023)

Household Size	Annual Income Limits
1-2	\$28,700
3	\$33,300
4	\$40,600
Each Additional Member	\$7,300

Source: CPUC¹⁶

Moreover, the California Lifeline discount is allowed for only one phone subscription per household, either on a landline phone or on a cell phone (with the exception of subscribers using teletypewriters who can have two phones). California Lifeline participants are required to recertify their eligibility in the program annually to receive ongoing discounts. As a practical matter, the California Lifeline Program reimburses telephone service providers for the discounts they have granted to Lifeline participants as well as administrative costs upon monthly claims for reimbursements.

Unlike other states which rely on the National Verifier linked to federal databases¹⁷, California has a separate system of certification and verification of eligibility. Currently, only three states—California, Texas, and Oregon—maintain a separate eligibility verification process where the verification is conducted by a state agency (PUC) or third-party administrator (TPA).¹⁸ The TPA handles the application, enrollment, and renewal processes under the CPUC's oversight and supervision. As of 2020, "California administers over 4.12 million annual eligibility determinations for both the federal and state subsidies" through the TPA¹⁹ (the number of annual determinations is far greater than the number of participants because a single participant can require multiple qualifications in a single year and participants don't always stay in the program for a full year). However, there is an exception for standalone broadband subscribers. In this case, the state does not verify the eligibility of subscribers but uses the National Verifier which was fully launched in California on December 18, 2020.²⁰

There have been mixed evaluations toward California's divergent verification system. California's strict timelines for the verification and audit processes as well as their detailed appeal processes contribute to effective screening, yet this complicated screening system may have led to the erosion of participation rates.²¹ The majority of Lifeline participants live in states where they cannot be verified automatically through nationwide databases, including California, and need to

¹⁶ See <https://www.cpuc.ca.gov/lifeline/>

¹⁷ <https://www.usac.org/lifeline/national-verifier/eligibility-verification/>

¹⁸ See "National Verifier December 20, 2019 Launch" (<https://www.usac.org/lifeline/national-verifier/how-to-use-nv/launches/national-verifier-opt-out-launch/>)

¹⁹ CPUC. (2020). California Lifeline – State Operations and Local Assistance Update, May Revision Estimate. https://esd.dof.ca.gov/Documents/bcp/2021/FY2021_ORG8660_BCP4057.pdf

²⁰ See "National Verifier December 20, 2019 Launch" (<https://www.usac.org/lifeline/national-verifier/how-to-use-nv/launches/national-verifier-opt-out-launch/>)

²¹ Wein, O., & Mailloux, C. (2010, July 15). In Response to the Federal-State Joint Board Request for Comment. https://web.archive.org/web/20220525102018/https://www.nclc.org/images/pdf/energy_utility_telecom/telecommunications/lifeline_comments_2010.pdf

submit documents proving their eligibility which have to be reviewed manually (GAO, 2021, p. 12–13).²² ²³ According to interviews with CPUC representatives (April 2022), the TPA began implementing automatic Lifeline renewal for CalFresh recipients in 2021, confirming their eligibility directly via “CalFresh Confirm.”²⁴ Generalizing this practice could help promote participation but is complicated as it involves multiple different parties and potentially conflicts with privacy law (e.g., linking MEDICAL database can run afoul of HIPAA rules).

Four qualification methods account for over 90% of all CA Lifeline qualifications – in decreasing order: Medicaid/Medi-Cal, Supplemental Nutrition Assistance Program, Income, and Supplemental Security Income. For 2021, among those four methods, combined qualifications through Medicaid/Medi-Cal and SNAP account for 83.8% of qualifications, while the combined qualifications through Income and SSI account for 14.2% (see figure 3).

Qualification for wireless benefit relies more heavily on program-based rather than income-based criteria. In 2021, almost 94% of wireless lifeline recipients qualified based on program participation, MEDICAL and SNAP together accounting for 90.4% of qualifications (see Table 5). This suggests a possible streamlining of the qualification process, whereby participants in these two programs could be automatically enrolled in California Lifeline (see the last section for elaboration). There may also be beneficial synergies between Medi-Cal and Lifeline, since ensuring that vulnerable patients are connected could help enhance healthcare delivery.

Table 5: Qualification methods for California Lifeline, by Carrier Type, in 2021

% Recipients (2021)	MEDICAL	SNAP	Income	SSI	Total of 4 top Methods	MEDICAL + SNAP	Income + SSI
Landline	50.0%	3.7%	29.8%	11.2%	94.8%	53.8%	41.0%
Wireless	52.0%	38.4%	5.8%	2.5%	98.7%	90.4%	8.3%
Grand Total	51.6%	32.1%	10.2%	4.1%	98.0%	83.8%	14.2%

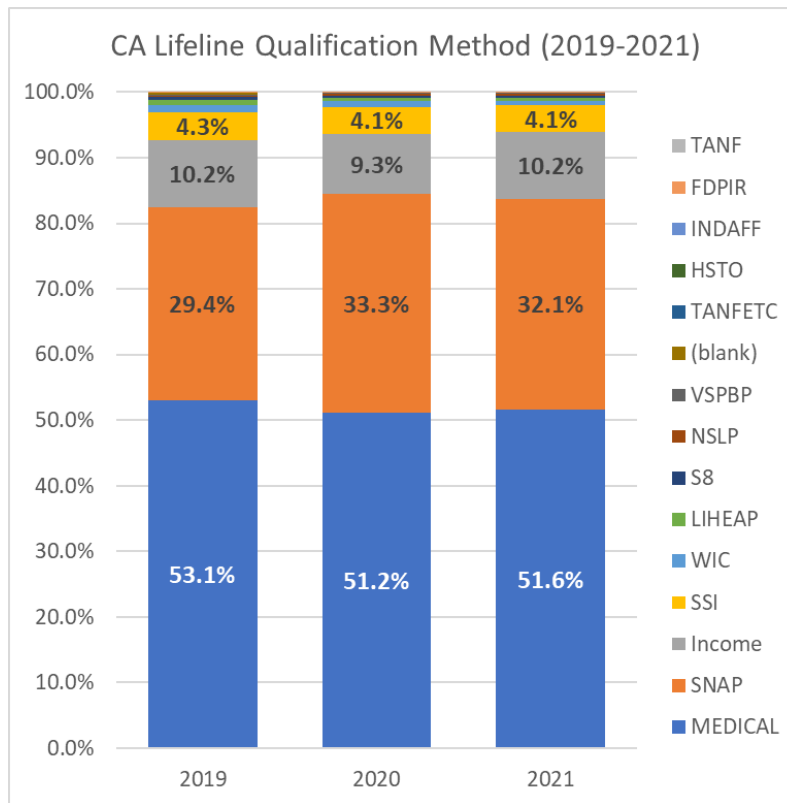
Source: (authors’ calculations based on CPUC data)

²² GAO (2021, January). FCC Has Implemented the Lifeline National Verifier but Should Improve Consumer Awareness and Experience. <https://www.gao.gov/assets/gao-21-235.pdf>

²³ USAC. (2021, February 1). National Verifier Annual Report and Data. <https://www.usac.org/wp-content/uploads/lifeline/documents/nv/reports/National-Verifier-Annual-Report-%E2%80%93-January-2021.pdf>

²⁴ CPUC. (2022). California Lifeline – State Operations and Local Assistance Estimate (May Revision). https://esd.dof.ca.gov/Documents/bcp/2223/FY2223_ORG8660_BCP6123.pdf

Figure 3: CA Lifeline Qualification Methods



Source: (authors' calculations based on CPUC data)²⁵

According to CPUC (2022), CA Lifeline and the ACP both aim to provide “affordable communications services to low-income participants” thus there is a significant overlap in the targeted populations (Table 6). For instance, current ACP and CA Lifeline eligibility requirements both include programs such as Medicaid, SNAP and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).²⁶ Moreover, these programs provide broader eligibility criteria in terms of programs and income thresholds compared to the federal Lifeline. Such broader eligibility criteria may contribute to increasing horizontal efficiency, reaching the right people that need subsidies. The Lifeline and ACP programs differ significantly in the amount of subsidy. Further, the ACP imposes none of the restrictions many state lifeline programs attach to their benefit (e.g., some are available only for voice services, some only for people over 65, etc.). Recipients are able to combine the benefits

²⁵ FDPIR (Food Distribution Program on Indian Reservations); HSTO (Head Start Income Eligible (Tribal Only)); Income (Documented Income rather than participation in a Program); INDAFF (Bureau of Indian Affairs General Assistance); LIHEAP (Low Income Home Energy Assistance Program); MEDICAL (Medicaid/Medi-Cal); NSLP (National School Lunch Program); S8 (Public Housing Assistance or Section 8); SNAP (CalFresh, Food Stamps, or Supplemental Nutrition Assistance Program); SSI (Supplemental Security Income); TANF (Tribal TANF); TANFETC (TANF, CalWORKS, StanWORKs, WTW, GAIN); VSPBP (Veterans and Survivors Pension Benefit Program); WIC (Women, Infants, and Children Program)

²⁶ CPUC (2022). California LifeLine Staff Proposal: Reimbursement for ACP Service Offerings (pp. 4-5), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M461/K182/461182113.PDF>

of these various programs. Finally, the ACP does not require ETC certification, which may lead to more companies participating.

Table 6: Comparison of Lifeline to ACP

	The Federal Lifeline Program	The California LifeLine Program	The Affordable Connectivity Program
Income Threshold	135% of FPL	150% of FPL	200% of FPL
Prominent Programs that Establish Eligibility	<ul style="list-style-type: none"> • Medicaid • SNAP • SSI¹² 	<ul style="list-style-type: none"> • Medicaid • Medi-Cal • SNAP • SSI • WIC • National School Lunch¹³ 	<ul style="list-style-type: none"> • Federal Lifeline • Medicaid • SNAP • SSI • WIC • National School Lunch¹⁴
Monthly Subsidy	Up to \$9.25	Up to \$16.23	Up to \$30.00
Targeted Service	Voice bundled with broadband transitioning to only broadband	Standalone voice and voice bundled with broadband	Broadband

Source: California Lifeline Staff Proposal: Reimbursement for ACP Service Offerings (p. 5)²⁷

b. Participation rate and PUMA characteristics

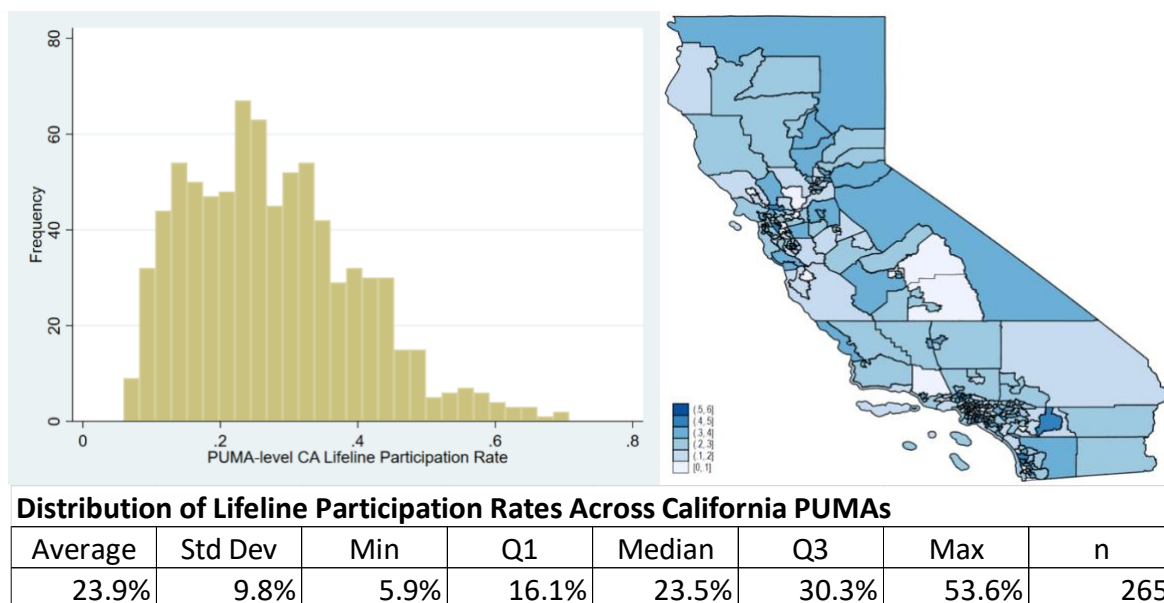
This section explores the socio-economic and demographic determinants of participation in CA Lifeline. The analysis is based on a PUMA-level dataset²⁸ that combines CA Lifeline participation rate data from the CPUC with demographic data from the 2020 Census Bureau’s American Community Survey (ACS). To calculate eligible households, we follow the FCC’s eligibility guideline for the Lifeline program – i.e., a household is eligible for Lifeline so long as one of the household members is eligible. The CA state Lifeline program has broader eligibility criteria: it sets a higher qualification threshold (150% of the federal poverty level rather than 135%) and allows qualification based on a few additional programs than the federal Lifeline program. The participation rate estimates reported in this brief account for the higher income threshold but cannot estimate the precise number of households eligible through these additional programs, for which there is no good proxy in the ACS data. However, since the four top qualification methods account for 98% of all qualifications, this is a very close approximation. A detailed discussion of how this unique dataset was created can be found in Appendix B.

²⁷ CPUC (2022). California LifeLine Staff Proposal: Reimbursement for ACP Service Offerings, available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M461/K182/461182113.PDF>

²⁸ The United States Census Bureau defines Public Use Microdata Areas (PUMAs) as “non-overlapping, statistical geographic areas that partition each state or equivalent entity into geographic areas containing no fewer than 100,000 people each” (<https://www.census.gov/programs-surveys/geography/guidance/geo-areas/pumas.html>).

At the end of June 2021, the mean of CA Lifeline participation rate (i.e., the ratio of CA Lifeline subscriptions to eligible households) across PUMAs was 23.9% (2021). However, there is a wide variation in the participation rate across PUMAs, ranging from a minimum of 5.9% in Contra Costa / San Ramon to a maximum of 53.6% in South Central L.A. / Compton. The data show no obvious geographical pattern (urban v. rural, north v. south) (see Figure 4). To better understand the reasons for this variation, the next section explores the impact of socio-economic variables.

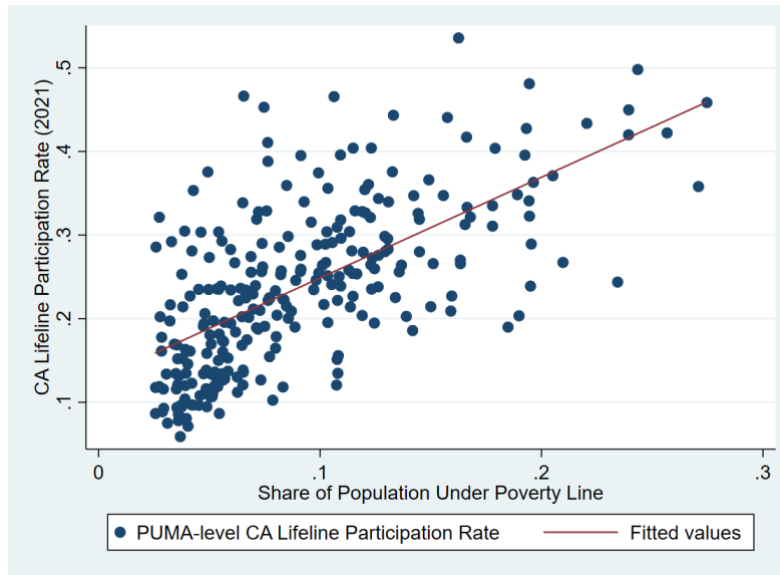
Figure 4: PUMA-level CA Lifeline Participation Rate (Frequency).



Source: (authors' calculations based on CPUC data)

Did the CA Lifeline program reach the households most in need? There is a significant correlation between participation rates and the share of population under poverty line ($R^2=0.41$). PUMAs with a greater poverty level have higher Lifeline participation rates.

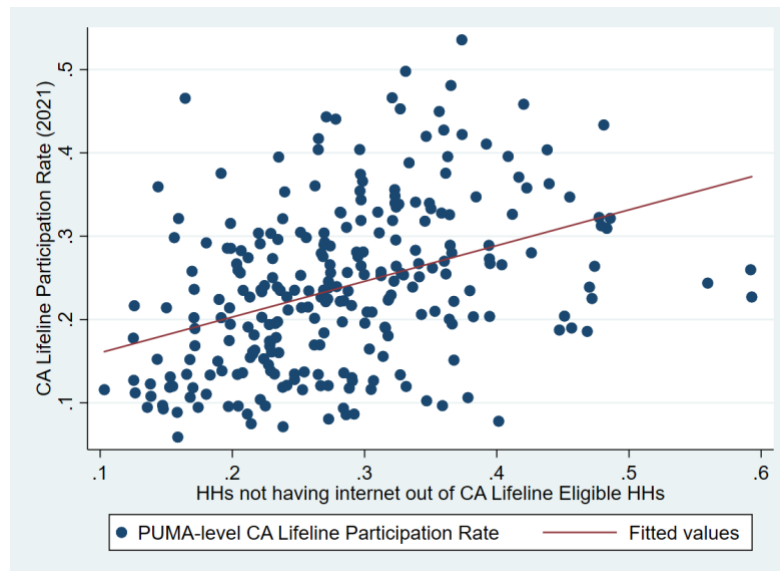
Figure 5: CA Lifeline participation and share of population under poverty line (2021)



Source: (authors' calculations based on CPUC data)

The data also show a correlation between CA Lifeline participation rates and lack of internet connectivity. In figure 6, participation rate is plotted against the share of households without Internet. There is a modest statistically significant correlation between CA Lifeline uptake and the share of unconnected households ($R^2=0.15$). Thus, PUMAs with more households without internet connection show greater Lifeline participation.

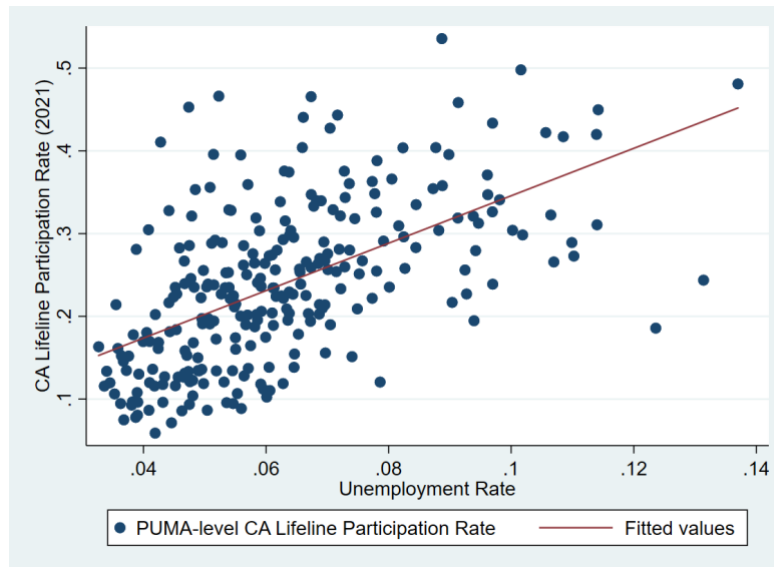
Figure 6: CA Lifeline participation and share of households without internet (2021)



Source: (authors' calculations based on CPUC data)

Likewise, when participation rate is plotted against the unemployment rate (see figure 7), there is a moderately strong association between CA Lifeline uptake and unemployment rate ($R^2=0.33$). PUMAs with higher unemployment rates show higher participation rates.

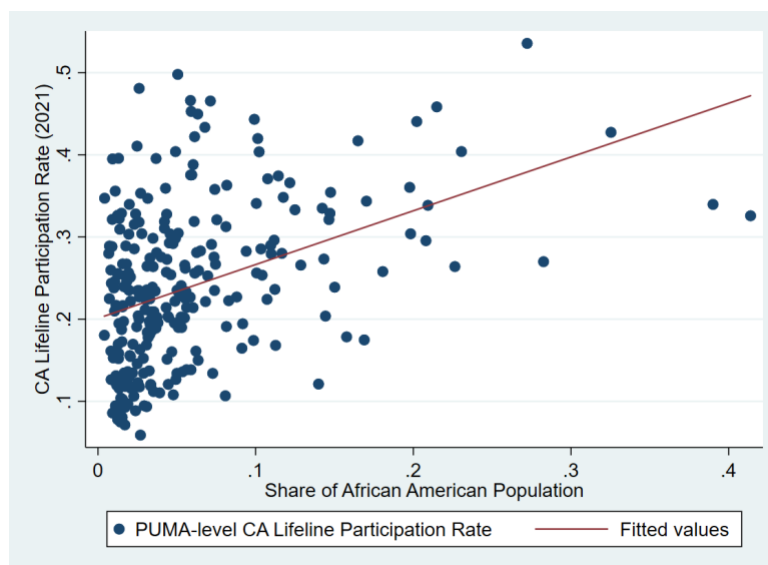
Figure 7: CA Lifeline participation and unemployment rate (2021)



Source: (authors' calculations based on CPUC data)

There is also modest positive correlation between uptake and African American population ($R^2=0.16$), as participation increases with the share of African American population.

Figure 8: CA Lifeline participation and the share of African American population (2021)



Source: (authors' calculations based on CPUC data)

Contrary to Hauge et al. (2007) which found that states with proportionally more educated citizens have higher participation rates²⁹, our analysis found no significant association between CA Lifeline participation rate and the share of population with higher education.³⁰ We also did not find any significant association between participation rates and a PUMA's share of foreign-born population (neither citizenship nor US residency is an eligibility requirement for CA Lifeline).

Overall, participation in CA Lifeline is greater in PUMAs where there is greater level of poverty, lack of internet connectivity, higher proportion of African American population, and higher unemployment rates.

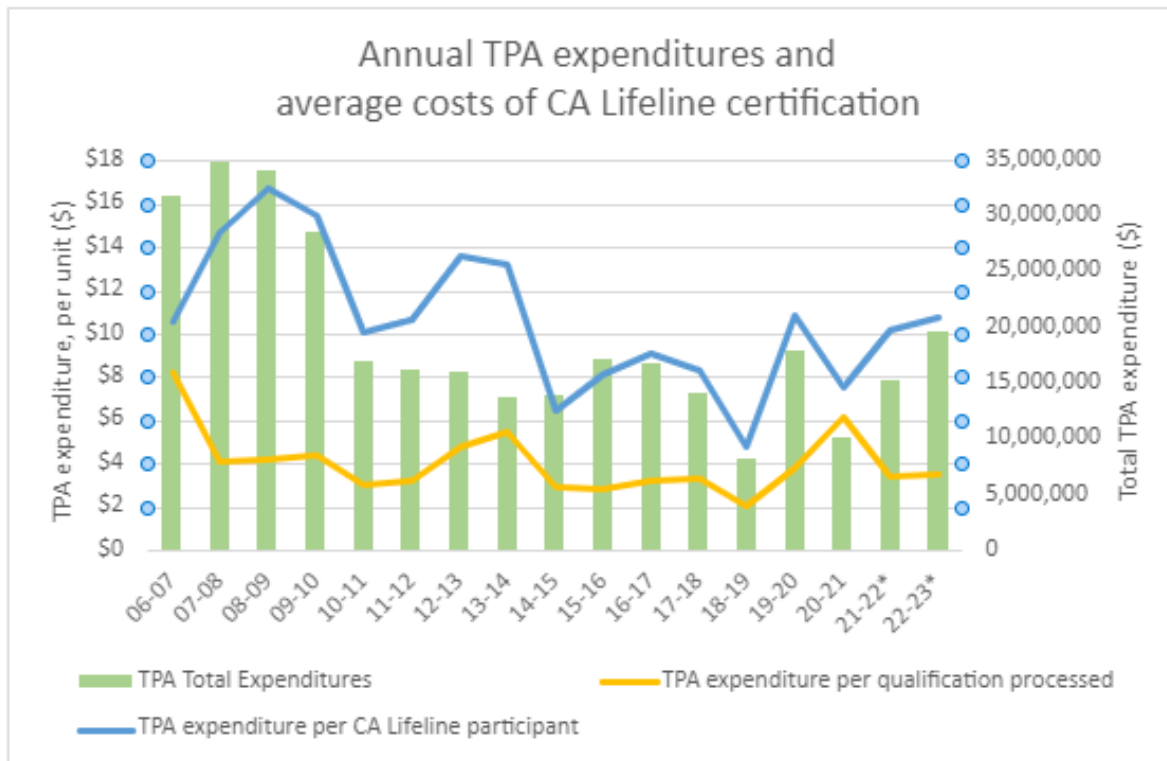
3. Cost-efficiency – administrative costs

Because California contracts with a Third-Party Program Administrator (TPA) to manage the Lifeline program, administrative costs are clearly identified as TPA expenditures. TPA's services enable communication and technical coordination between the contractor, the participating carriers, the Commission, and the public, which is essential for effectively implementing the California Lifeline program. TPA expenses include determining eligibility of households and enrollment, managing databases and communication systems, providing customer service, preventing waste/fraud/abuse of the program, etc. According to the CPUC (2020), "overall TPA expenditures are primarily driven by the number of qualifications processed" and "TPA costs have historically made up approximately 80 percent of State Operations expenses." As shown in the figure below, overall TPA expenditure gradually decreased until fiscal year 2013-2014 but increased again when the wireless subsidy was introduced in March 2014.

²⁹ Hauge, J. A., Jamison, M. A., & Jewell, R. T. (2007). Participation in Social Programs by Consumers and Companies: A Nationwide Analysis of Participation Rates for Telephone Lifeline Programs. *Public Finance Review*, 35(5), 606–625. <https://doi.org/10.1177/1091142106299019>

³⁰ USC Annenberg. (Jan 2022). A Roadmap for Affordable Broadband: Lessons from the Emergency Broadband Benefit. <https://arnicusc.org/wp-content/uploads/2022/02/Policy-Brief-final.pdf>

Figure 9: Annual TPA expenditures and average costs of CA Lifeline certification

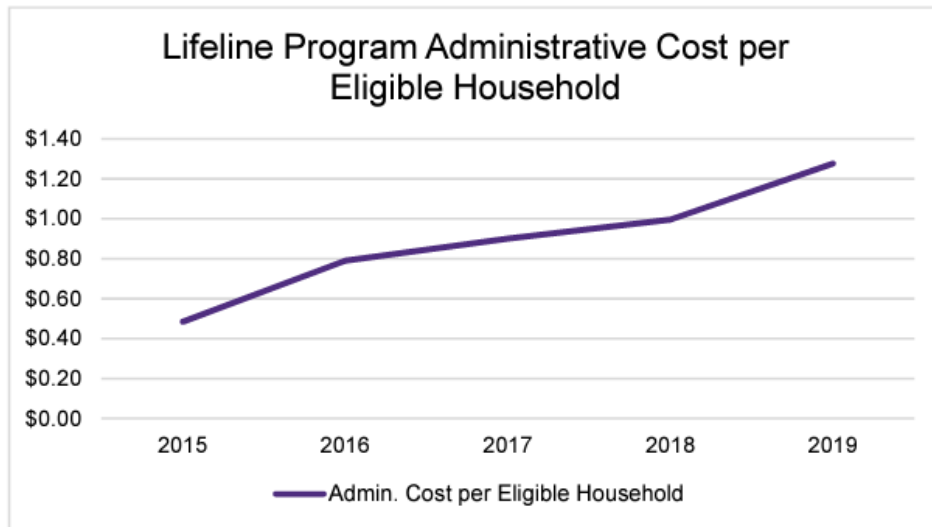


Source: (authors' calculations based on CPUC data – amounts in current dollars)

Notes: * 2021-22 and 2022-23 are projections; 2018-19 includes cost of transitioning to new TPA

The average annual TPA expenditure over the past 5 years (2016-2021) was \$3.80 per application processed. During these 5 years, the average number of CA Lifeline participants was 1.604 million, yielding an average administrative cost per participant of \$8.80. Another way to benchmark administrative costs is to calculate costs per eligible household. Given the estimated 5,340,578 eligible California households, this yields a cost of \$1.88 per eligible household. This is higher than USAC's reported administrative cost of \$1.3 per eligible household in 2019 (see figure 10).

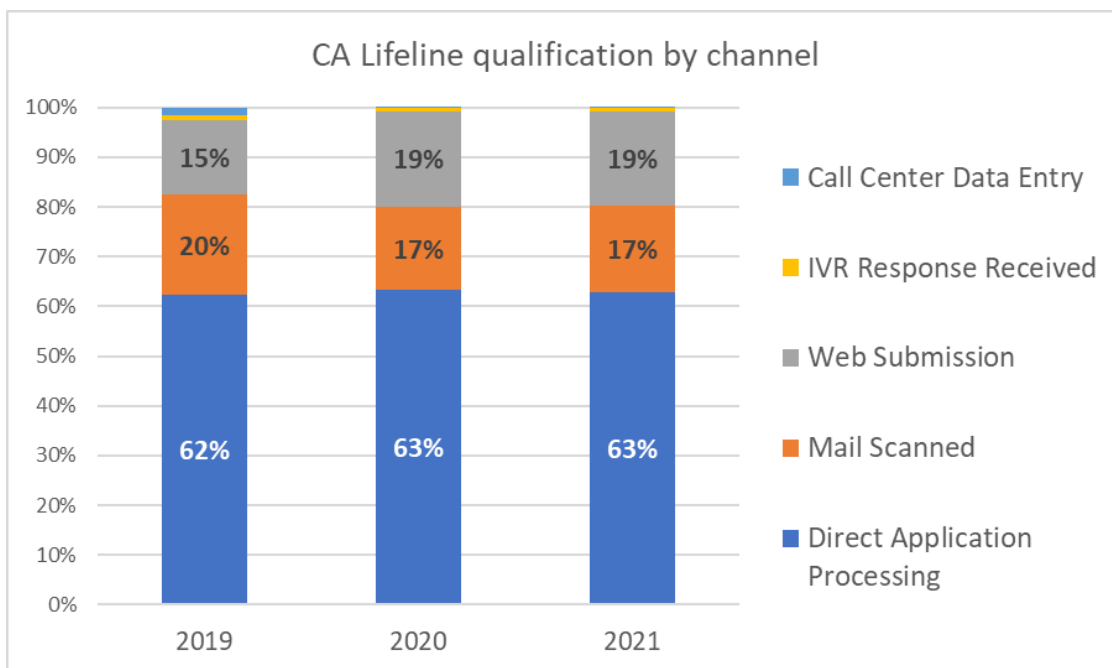
Figure 10: Federal Lifeline administrative cost per eligible household



Source: <https://www.neca.org/docs/default-source/wwwpdf/public/7121usac.pdf> (p. 57 Fig. 12)

The TPA receives Lifeline applications via seven different channels, but in 2021 three channels account for 99% of all applications it processes: Direct Applications (63%), Mail (17%) and Web (19%).

Figure 11: CA Lifeline qualification by channel



Source: (authors' calculations based on CPUC data)

According to CPUC staff, “there is no difference in cost to CPUC per decision, regardless of the TPA’s level of effort to ingest and review qualifications received from the participant via different channels” (interviews with CPUC staff, April 2022). They also mentioned that although automating decisions may cost the CPUC less than decisions based on TPA review, this may involve separate costs to create or operate connections to the other programs.

4. Barriers to Enrollment

There have been some studies conducted on factors that may affect participation/enrollment rates of the Federal Lifeline program. For instance, Burton and Mayo (2005) found that “states that have created mechanisms to ease enrollment burdens have significantly higher participation in the Lifeline program among eligible households” and that “restrictions on access to additional lines or vertical services diminish the utility of the service and, therefore, dampen participation in the Lifeline program” (p. 21).³¹ In addition, Hauge and colleagues (2007) analyzed that “states with proportionally more educated citizens” and “states with proportionally more welfare recipients” have higher participation rates, which may be due to higher awareness of public programs and lower marginal stigma costs (p. 622).³²

Although California had a higher participation rate for the Federal Lifeline program compared to other states, the enrollment for California Lifeline program had been “steadily declining prior to adding wireless service in 2014” (Petek, 2019).³³ Program enrollment drastically increased starting from 2014 but has declined since 2016.³⁴ A report by the Legislative Analyst’s Office (LAO) suggests the following three reasons as potential barriers to enrollment in the California Lifeline program: (1) awareness of the program or need to renew enrollment, (2) preference of another telephone plan or carrier, or (3) difficulty in enrollment and/or renewal processes.³⁵

a. Lack of awareness/outreach efforts

First, eligible households may be unaware of the program due to CPUC’s lack of marketing or outreach effort. As of 2019, CPUC does not have a formal statewide marketing and outreach plan and instead individual carriers take the burden of marketing. In addition, individual carriers use different names for the program rather than referring to it as the Lifeline program, which may also lead to low

³¹ Understanding Participation in Social Programs:

Why Don’t Households Pick up the Lifeline? (March 2005)

By Mark Burton University of Tennessee, John W. Mayo Georgetown University.
https://bear.warrington.ufl.edu/centers/purc/docs/papers/LIFELINE/0206/0305_Burton_Mayo_Understanding_Participation_in.pdf

³² Hauge, J. A., Jamison, M. A., & Jewell, R. T. (2007). Participation in Social Programs by Consumers and Companies: A Nationwide Analysis of Participation Rates for Telephone Lifeline Programs. *Public Finance Review*, 35(5), 606–625. <https://doi.org/10.1177/1091142106299019>

³³ Petek, G. (2019, April 3). A Review of Lifeline Budget Estimates and Enrollment Process. *Legislative Analyst’s Office (LAO)*. <https://lao.ca.gov/Publications/Report/3995>

³⁴ CPUC. (2020). California Lifeline – State Operations and Local Assistance Update

³⁵ Petek, G. (2019, April 3). A Review of Lifeline Budget Estimates and Enrollment Process. *Legislative Analyst’s Office (LAO)*. <https://lao.ca.gov/Publications/Report/3995>

enrollment and renewal rates. Marketing materials provided by these carriers are usually limited to English and Spanish, which limits outreach to other ethnic minority groups. CPUC also has limited coordination with other government agencies or nonprofit organizations that work with a similar target population.³⁶

b. Limited plans/carriers

Second, participants might choose not to enroll in Lifeline due to their preference for a different plan or carrier. Currently, California provides Lifeline program through 28 wireline and 13 wireless providers including Access Wireless, Assurance Wireless, Entouch Wireless, Feel Safe Wireless, Life Wireless, Safelink Wireless, SafetyNet Wireless, StandUp Wireless, Tag Mobile, TruConnect, etc. However, larger nationwide wireless carriers such as Verizon and AT&T do not participate in this program, which may affect participants' willingness to enroll.³⁷

c. Complicated enrollment/renewal process

Finally, complicated documentation requirements and enrollment processes may be a factor hindering participation. Prior to online application for the California Lifeline program, CPUC required applicants to first contact an individual carrier and receive a unique PIN via physical mail. This PIN number is required to enroll online, and it may take several days until the application form arrives, complicating the enrollment process. Moreover, applicants must submit documents proving their enrollment in other public assistance programs or household income level so that TPA can verify their eligibility. Acquiring and uploading such documents online might be challenging to those deprived of access to computers, copiers, and scanners. Also, the renewal process heavily relies on physical mail which may be burdensome and confusing to the participants.³⁸ According to CPUC staff, TPA has started implementing a new Service Provider Intake API (SPIA)—a channel that “enables real-time submissions and status reviews for new subscriber enrollment, updates, disconnects, removals, and Lifeline application mailing requests”³⁹—to facilitate renewal processes.

Participants use drastically different enrollment/renewal channels depending on whether they apply for landline or wireless discounts. The vast majority of wireless recipients (76.52%) rely on Direct Application Processing (DAP), an API used by wireless service providers since 2014. By contrast, the majority of landline recipients (57.14%) rely on physical mail. A potential reasoning for declining participation rates during the pandemic could be that many Lifeline wireless recipients traditionally receive discounted service (and the free handset that usually comes with it) from street kiosks, many of which were shuttered during the pandemic. Other than the street recruitment option, participants are required to individually contact their home or cell phone company to apply for CA Lifeline, which

³⁶ Petek, G. (2019, April 3). A Review of Lifeline Budget Estimates and Enrollment Process. *Legislative Analyst's Office (LAO)*. <https://lao.ca.gov/Publications/Report/3995>

³⁷ Petek, G. (2019, April 3). A Review of Lifeline Budget Estimates and Enrollment Process. *Legislative Analyst's Office (LAO)*. <https://lao.ca.gov/Publications/Report/3995>

³⁸ Petek, G. (2019, April 3). A Review of Lifeline Budget Estimates and Enrollment Process. *Legislative Analyst's Office (LAO)*. <https://lao.ca.gov/Publications/Report/3995>

³⁹ TPA. (Sep 2022). TPA LifeLine Overview 09-20-22. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/lifeline/ultsac/tpa-presentations/2022/ca-lifeline---maximus--ults-ac--presentation_2022_09_20-final.pptx

can be more burdensome. However, we do not have data on how many wireless Lifeline recipients sign up or renew via street kiosks.

Table 7: 2021 Qualification channel by carrier type

Qualification Channel	Landline		Wireless		Total	
DAP	640	0.26%	834,922	76.52%	835,562	62.70%
Web	99,445	41.17%	154,658	14.17%	254,103	19.07%
Mail	138,029	57.14%	94,065	8.62%	232,094	17.42%
IVR	2,948	1.22%	6,468	0.59%	9,416	0.71%
Call Center	183	0.08%	367	0.03%	550	0.04%
N/A	322	0.13%	625	0.06%	947	0.07%
Grand Total	241,567	100%	1,091,105	100%	1,332,672	100%

Source: (authors' calculations based on CPUC data)

The CPUC conducted a survey of CA Lifeline participants to understand the under-utilization phenomenon and asked the respondents to select the top three improvements they would like to see from the Lifeline cell phone service.⁴⁰

Table 8: Top three improvements requested from CA Lifeline customers

Please select the TOP THREE improvements to your LifeLine cell phone service that you would like to see. (n=4,126)	Better phone included with the plan	2,815	68.2%
	Better coverage	1,478	35.8%
	Better service plan options	1,020	24.7%
	Make the enrollment and/or re-enrollment process easier or less confusing	917	22.2%
	Something else	892	21.6%
	Better customer service	856	20.7%
	Better savings	281	6.8%

Source: CPUC Survey

The top factor was better phone included with the plan (68.2%), followed by better coverage (35.8%), better service plan options (24.7%), and making the enrollment and/or re-enrollment process easier or less confusing (22.7%). As such, CPUC survey results partially confirm the potential barriers that were discussed above.

5. Conclusion

This study of California's Lifeline highlights important characteristics of one of the most successful Lifeline programs in the nation. They hold important lessons as policy makers fine-tune

⁴⁰ CPUC. (n.d.) Preliminary Wireless Survey Results. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/lifeline/preliminary_wireless_survey_results.xlsx

new digital equity programs, including the Affordable Connectivity Program (ACP). First, California Lifeline is now predominantly a wireless assistance program, similar to the Emergency Broadband Program (EBB) and the ACP. To the extent that State and Federal programs coexist, it would be worth exploring how they can be coordinated to provide a combination of wireless and wireline broadband assistance. Second, this study shows vast differences in Lifeline participation among communities, reflecting variation in socio-economic characteristics. This suggests that outreach strategies targeting under-connected populations will be particularly useful. Third and finally, the analysis of overlap between participation in various social benefit programs shows that four qualification criteria predict Lifeline eligibility for more than 90% of California households. This suggests there is great potential for automated enrolment strategies, which would likely remove significant participation obstacles.

About the project

This policy brief is part of the Measuring the Effectiveness of Digital Inclusion Approaches (MEDIA) project, a research program that seeks to analyze existing broadband inclusion initiatives and provide evidence-based recommendations on how best to connect low-income households to broadband on a sustainable basis. This policy brief is the second in a series of publications based on results from the program.

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Appendix A.

The text below is taken directly from CPUC website⁴¹:

Program-based Eligibility Criteria for CA Lifeline:

- Medicaid/Medi-Cal
- Low Income Home Energy Assistance Program (LIHEAP)
- Supplemental Security Income (SSI)
- Federal Public Housing Assistance or Section 8
- CalFresh, Food Stamps or Supplemental Nutrition Assistance Program (SNAP)
- Women, Infants and Children Program (WIC)
- National School Lunch Program (NSL)
- Temporary Assistance for Needy Families (TANF)
 1. California Work Opportunity and Responsibility to Kids (CalWORKs)
 2. Stanislaus County Work Opportunity and Responsibility to Kids (StanWORKs)
 3. Welfare-to-Work (WTW)
 4. Greater Avenues for Independence (GAIN)
- Tribal TANF
- Bureau of Indian Affairs General Assistance
- Head Start Income Eligible (Tribal Only)
- Food Distribution Program on Indian Reservations
- Federal Veterans and Survivors Pension Benefit Program

⁴¹ <https://www.cpuc.ca.gov/lifeline/>

Appendix B.

Table 8: Estimations for CA Lifeline participation rate (OLS)
Source: Authors' calculations based on CPUC data and 2020 ACS data

VARIABLES	(1) CA Lifeline Participation Rate Based on 3 years 2019/20/21	(2) CA Lifeline Participation Rate Based on 2021 data only
HHs not having internet out of CA Lifeline Eligible HHs	-9.03e-06*** (2.09e-06)	-7.44e-06*** (1.90e-06)
Population Density (Per Sq. Mile)	3.20e-06 (1.94e-06)	3.57e-06** (1.73e-06)
Share of Hispanic/Latino Population	0.0310 (0.0625)	0.00552 (0.0573)
Share of Black (African American) Population	0.354*** (0.103)	0.245*** (0.0868)
Average Household Income	-2.35e-07 (2.70e-07)	-2.05e-07 (2.43e-07)
Share of Single Parents having Children	0.206 (0.615)	0.172 (0.541)
Median Age	-0.000358 (0.00176)	0.000217 (0.00157)
Foreign born Population	9.93e-08 (3.78e-07)	2.80e-07 (3.36e-07)
Share of Population under poverty line	0.691** (0.302)	0.522* (0.267)
Share of Population with Higher Education (Above College)	-0.132 (0.163)	-0.124 (0.147)
Unemployment rate	1.810*** (0.429)	1.512*** (0.400)
Constant	0.188* (0.103)	0.154* (0.0932)
Observations	795	265
R-squared	0.557	0.546
Year	2019/2020/2021	2021

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Variable Description and Sources

Variable	Description	Source	Year
CA Lifeline Participation Rate	California Lifeline Subscription out of CA Lifeline Eligible HHs	CPUC	2019, 2020, 2021
HHs not having internet out of CA Lifeline Eligible HHs	Share of HHs without Internet out of CA Lifeline Eligible HHs	ACS	2020
Population Density	Density of population (per square mile)	ACS	2020
Share of Hispanic/Latino population	Share of Hispanic/Latino residents	ACS	2020
Share of Black (African American) population	Share of Black (African American) residents	ACS	2020
Average Household Income	Average Household Income	ACS	2020
Share of Single Parents having Children	Share of single parents that have children	ACS	2020
Median age	Population median age	ACS	2020
Foreign-born population	Share of foreign-born residents	ACS	2020
Share of Population under poverty line	Share of HHs below federal poverty line	ACS	2020
Share of Population with Higher Education	Share of population with college degree or higher	ACS	2020
Unemployment rate	Unemployment rate	ACS	2020

CA Lifeline Participation Rate Calculation

California Lifeline Subscription (Enrollment)

CPUC provides zipcode level lifeline subscription data for 2019, 2020, and 2021. Based on this dataset, we aggregated the subscription from 2,200 zipcodes up to 265 PUMAs. Since the zipcode boundary is not completely nested within the PUMA, we used the Census boundary crosswalk data (Missouri Census Data Center) to match zipcodes and PUMAs. The process of calculating zipcode-level CA lifeline subscription is included in the lines from 3 to 246 of our STATA dofile (CA lifeline datawork.do). In addition, the crosswalk from zipcode to PUMA is included in the lines from 252 to 411 in the same dofile.

Source: CPUC

Aggregate zipcode level CA lifeline HHs into PUMA level by using crosswalk data

To calculate the PUMA level CA lifeline subscriptions from the zipcode level data, we use the crosswalk between zipcode and PUMA by using a variable *afact* that indicates the portion of Zip code to each PUMA from the Missouri Census Data Center dataset. We use the version of Geocorr 2018 to find the boundaries between zipcode and PUMA.

Crosswalk data source (Missouri Census Data Center):

<https://mcdc.missouri.edu/applications/geocorr2018.html>

Eligibility

Following the methodology by FCC's eligibility calculation for the Lifeline program, we use ACS 2020 population and housing survey data to calculate the eligible households for CA Lifeline at the PUMA level. We use five criteria and variables from the ACS data to calculate eligible households, finding four variables (HINS4, PAP, SSIP, POVPIP) from the population survey and one (FS) from the household survey.

- 1) Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability (HINS4: 1 - Yes)
- 2) Yearly food stamp/Supplemental Nutrition Assistance Program (SNAP) reciprocity (FS: 1 - Yes)
- 3) Public assistance income over past 12 months (any amount) (PAP: 1 to 30000 -- \$1 to \$30000 (Rounded))
- 4) Supplemental Security Income over past 12 months (any amount) (SSIP: 1 to 30000 -- \$1 to \$30000 (Rounded))
- 5) Poverty status recoded indicating household income below the 150% poverty threshold (POVPIP: 0:150 (inclusive))

In addition, we use the household weight variable (WGTP) to estimate the eligible households at the PUMA level. Also, we don't include the Housing Record or Group Quarters Unit (places where people live or stay in a group living arrangement that is owned or managed by an organization providing housing and/or services for the residents) in the variable of 'RT: Record Type', and only used person recode (P), following the method of Census population and household estimation. The process of

calculating CA lifeline eligibility is included in the lines from 414 to 789 of our dofile (CA lifeline datawork.do).

Source for 2020 ACS file: <https://www2.census.gov/programs-surveys/acs/data/pums/2020/5-Year/>

We downloaded both population (csv_pca.zip) and housing surveys (csv_hca.zip) for the PUMAs in California.

Lifeline subscription ratio out of eligible households

After calculating the Lifeline subscription HHs and eligible HHs by PUMA level, we calculate the Lifeline subscription ratio out of eligible HHs in PUMA level using the crosswalk data from the Missouri Census Data Center (MCDC) based on the most recent population (proportion) weight (2016).

Socio-economic data

We mainly use socio-economic and demographic control variables from the ACS2020. We download the PUMA level ACS2020 dataset from Social Explorer and merged it with our original PUMA-level dataset. The lines from 819 to 974 in our dofile includes the process of control variable datawork.

Appendix C: Detailed notes on State Lifeline programs for Figure 2

- Missouri: \$18.75 is for voice-only; \$14.75 for voice bundled with broadband
- Minnesota: The Minnesota TAP benefit applies to landline only
- New York: for wireline, voice only
- Michigan: \$12.35 if over 65-year-old
- West Virginia: voice only
- Kentucky: \$6 if unlimited voice, \$3.50 otherwise
- Montana: wireline only
- Connecticut: Frontier offers a \$1.17 monthly state discount
- District of Columbia: \$3 if over 65-year-old
- Illinois: \$35 one-time installation waiver