Research

The High Cost to Add Lifeline Wireless Customers

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Since the 1980s, the Lifeline program has provided a subsidy for telephone service for low income households. However, changes in the broader communication ecosystem has prompted the Federal Communications Commission (FCC) to implement reforms to the program. Among the changes that the Federal Communication Commission (FCC) is currently considering for the wired and wireless Lifeline subsidy, the most important should be the implementation of an evaluation program. According to our model, which incorporates the most recent data, the program costs $2,078 to add an additional wireless subscriber to the already existing telephone system for one year. In total, just under 6 percent of all the recipients of Lifeline added wireless service because of the program.

There are other ways to induce the adoption of new technologies. In 2012, U.S. consumers paid on average over 17 percent in wireless taxes and fees, which ranks these taxes among the highest for goods.[1] More than just good government and tax policy, lowering the wireless tax rate could go a long way to meet the goals of a majority of Americans having access to telephone service.

Time and again, the FCC has resisted implementing a program evaluation of Lifeline, even after reports from Government Accountability Office (GAO) suggested these changes, because, as the agency proclaims, the structure of the program "makes it difficult to determine a causal connection between the program and the penetration."[2] Well structured, independent studies have been conducted of the program for nearly as long as its existence, and almost universally it is found to be economically inefficient and ineffectual in achieving its stated goals.[3]

By updating a much cited model with variables for wireless, we were able to test Lifeline's usefulness for expanding wireless use.[4] While there is a statistically significant correlation between wireless penetration rates for a state and their Lifeline program, the overall effect

is small. An increase in the size of the program by 10 percent would only increase wireless penetration from .08 percent to .09 percent in our three models.[5] Assuming the higher number, the cost of adding a marginal user was $2,078. In 2012, 1.05 million marginal households got wireless services because of the program, even though 18.1 million households received the subsidy for both wired and wireless services. In total, just under 6 percent of the Lifeline households used their subsidy to get onto wireless services. The appendix contains the methodology for these findings.

Our outcomes are in line with other studies, and suggest that the program is rather ineffective in getting people into wireless services.

Appendix

The chart below displays the results of three models. The first model includes just a poverty variable, the second includes just an income variable and the third model includes both. Data from 2012 was used because it is the most recent date for the dependent variable, total wireless penetration by state, which comes from the Centers for Disease Control.[6] Because Montana, South Dakota, and Wyoming have such small populations, the CDC could not reliably estimate their telephone use, leading to 48 total observations. The tax variable is the total combined state and local taxes percentages.[7] The poverty variable is an estimate from the March Supplement of households living in poverty as a percentage of total households by state.[8] The income variable is a Census estimate of median household income from 2012.[9] The Lifeline variable represents the expenditures on Lifeline divided by the number of poor households.[10] The density variable is a percentage of population living in urban areas.[11] Because the previous model tries to track the effect of previous household consumption of telephone service, the Wireless 2010 variable is a two year lag variable, capturing those households that consumed some kind of wireless telephone service in 2010.[12]

	Total Wireless Penetration		
	(1)	(2)	(3)
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Tax	-0.016	-0.017	-0.016
	(0.015)	(0.015)	(0.015)

Poverty	-0.021		-0.014
	(0.016)		(0.024)
Income		0.031	0.016
		(0.025)	(0.037)
Lifeline	0.009*	0.008*	0.009*
	(0.005)	(0.005)	(0.005)
Density	0.039**	0.031	0.035*
	(0.018)	(0.019)	(0.020)
Wireless 2010	0.332***	0.338***	0.332***
	(0.070)	(0.069)	(0.070)
Constant	-0.155***	-0.444	-0.309
	(0.055)	(0.284)	(0.371)
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Observations	48	48	48
R2	0.448	0.446	0.45
Adjusted R2	0.382	0.38	0.369
Residual Std. Error	0.026 (df = 42)	0.026 (df = 42)	0.026 (df = 41)
F Statistic	6.804*** (df = 5; 42)	6.749*** (df = 5; 42)	5.589*** (df = 6; 41)
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Note: *p<0.1; **p<0.05; ***p<0.01			

[1] Joseph Henchmen and Scott Drenkard, *State and Local Governments Impose Hefty Taxes on Cell Phone Consumers,* http://taxfoundation.org/article/state-and-local-governments-impose-hefty-taxes-cell-phone-consumers