4F | SERVICE QUALITY ANALYSIS UPDATE: FRONTIER CALIFORNIA

Principal observations and takeaways:

- The greatest demand drop-offs for legacy POTS services generally occurred in the largest of Frontier's reporting units.
- Over the 2016-2019 Frontier ownership period, POTS access lines in service experienced a 52.3% decrease, dropping from 1,201,218 to 572,975. Thus, in less than four years after taking over the ILEC, more than half of Frontier California's POTS customers had discontinued their service.
- Over the period of Frontier ownership, the relative drop-off in legacy POTS access lines greatly exceeded the relative decrease in total out-of-service incidents; thus, under Frontier ownership, out-of-service incidents per 100 access lines in service increased.
- Improvements in service quality that were accomplished during the first seven quarters following Frontier's takeover were reversed in 2018-2019, which saw increases in the numbers of service outages lasting more than 24 hours and in the average duration of all service outages.
- 57.85% of the roughly 112,022 out-of-service conditions (34.84% on an "adjusted" basis) remained uncleared after 24 hours by Frontier during the 2018-2019 Phase 2 period. For the 118,402 out-of-service conditions during the 4/2016-12/2017 Phase 1 period, 53.83% (47.01% on an adjusted basis) remained uncleared after 24 hours. To satisfy the GO 133-C/D §3.4(c) requirement, these percentages would need to drop to less than 10%.
- Wire centers upgraded with Fiber-to-the-Premises ("FTTP") capable of providing FiOS broadband services achieve better service quality performance scores in virtually every category than those without such upgrades. But Frontier lost ground in all of these metrics both in upgraded and non-upgraded wire centers over the 2018-2019 period.
- The strong relationship between the number of POTS lines in a wire center and the quality of service provided that we had identified in Phase 1 has generally persisted into Phase 2.

Principal observations and takeaways (continued):

- The largest increases in service outages occurred in wire centers with the lowest POTS drop-off rates; the incidence of service outages increased more slowly or remained almost constant in wire centers with successively larger drop-off rates.
- Frontier service quality metrics continue to show the best results in higher-density serving areas.
- Except in those areas with the lowest population density, Frontier's response to out-of-service conditions had generally improved over the period immediately following its takeover. However, by 2018, these gains had started to reverse.
- Service quality metrics in all six Frontier Operating Areas generally improved from the April 2016 acquisition date through the end of 2017, but this pattern reversed course starting in 2018.
- The Operating Areas with the largest presence of fiber upgrades continue to exhibit the lowest number of OOS incidents and the shortest outage durations for those that do occur over the full 2016-2019 period.
- The trend in average duration of all out-of-service conditions, excluding those cleared within one hour, has been steadily increasing over the 2016-2019 Frontier ownership period.
- The largest increases in service outages continued to occur in wire centers with the lowest POTS drop-off rates.
- The Operating Areas within which most of the Verizon and Frontier FTTP upgrades have occurred have experienced the lowest number of OOS incidents and the shortest outage durations for those that do occur.

SERVICE QUALITY ANALYSIS UPDATE:
FRONTIER CALIFORNIA

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A NOTE ABOUT FRONTIER WIRE CENTER DATA

In total, Frontier California, and Verizon California before it, operate approximately 270 wire centers. Under Verizon ownership, the company had been reporting trouble ticket and out-of-service data separately for each of these 270 wire centers. However, for some unexplained reason, following its takeover, Frontier has administratively – *but not physically* – implemented a succession of consolidations of a number of these individual wire centers *for reporting purposes*, ultimately into approximately 198 combined "reporting units." ETI believes that Frontier's unexplained restructuring of its wire center data undermines the Commission's clear intent, in adopting the variouis GO 133 reporting requirements, to obtain *and track* service quality *at the individual wire center level*. By merging two or more separate wire centers into a single unit for reporting purposes, Frontier effectively conceals its service quality metrics for each of the individual wire centers within the consolidated group. As a consequence, the Commission can no longer track GO 133-C/D service quality performance at the wire center level for roughly half of all Frontier wire centers. Additionally, because some data continues to be reported at the individual wire center level and some wire center names and CLLI codes seem to have been changed or eliminated altogether, these consolidations have made it difficult to accurately integrate multiple datasets for analysis purposes. Henceforth in this Report, we shall refer to Frontier "reporting units" rather than as wire centers.

Introduction

The study period for Phase 1 of this Network Examination ended in December 2017. Only 21 of the 96 months under examination post-dated the transfer of control of the former Verizon California ILEC entity to Frontier Communications Corp. In order to provide a long-run assessment of the company's service quality performance, it was necessary to include all eight years of trouble report records and other relevant data as submitted by the company under both Verizon and Frontier management. As of the end of December 2019, however, the company will have been under Frontier management for 45 months. During this period, Frontier has put its own stamp on the company's operations and, accordingly, there seems little point in retaining the Verizon ownership period in our analysis. More importantly, and as discussed in greater detail in Chapter 8 below, the company's parent has been in the throws of a massive financial crisis that began shortly after it took over the three former Verizon ILECs – in California, Texas and Florida (the "CTF acquisition") – that ultimately led to its seeking Chapter 11 bankruptcy protection in April 2020. For all of these reasons, our Phase 2 analysis of Frontier California's service quality performance will be limited to the April 2016 through December 2019 period of Frontier ownership.

Frontier has been hemorrhaging customers almost from the date of the acquisition

Like ILECs nationwide, Verizon California had been losing customers for its legacy services long before it announced its deal in February 2015 to sell the three CTF companies to Frontier for $10.54-billion. On the date of that announcement, Verizon California was still serving

approximately 1.45-million POTS access lines.[24] By the time the deal closed on April 1, 2016, that number had dwindled by 16.6%, to 1,201,218.[25] As of the end of the Phase 1 study period (December 31, 2017), Frontier California was serving only 879,489 POTS access lines,[26] representing a drop of 26.8%, relative to the April 1, 2016 acquisition date, and as of the closing date of the Phase 2 study period (December 31, 2019), only 572,975 legacy service access lines remained on the Frontier California network,[27] a decrease of 52.3% relative to the April 1, 2016 closing date of the CTF acquisition.[28] Moreover, these losses were hardly confined to POTS-type services. As of February 2015 when the deal was announced, *FiOS* – Verizon's brand name for its Fiber-to-the-Premises ("FTTP") broadband service – was available to approximately 2.65-million homes within the Verizon California operating area.[29] Indeed, the broad availability of *FiOS* across all three of the CTF companies was seen as a major justification for Frontier's acquisition. But by the closing date on April 1, 2016, only [redacted] Frontier California customers were still taking *FiOS* from the company, and as of the end of 2019, that number had dwindled to only [redacted].[30] Table 4F.1 presents POTS access line data for the Frontier ownership period.

In total, Frontier California, and Verizon California before it, operate approximately 270 wire centers.[31] Under Verizon ownership, the company had been reporting trouble ticket and out-of-service data separately for each of these 270 wire centers. However, for some unexplained reason, following its takeover, Frontier has administratively -- but not physically -- consolidated a number of these individual wire centers *for reporting purposes*, ultimately into around 198 combined "reporting units."[32] ETI believes that Frontier's unexplained restructuring of its wire center data undermines the Commission's clear intent, in adopting the variouis GO 133 reporting requirements, of obtaining *and tracking* service quality at the wire center level. By combining two or more separate wire centers into a single reporting unit, Frontier has effectively concealed its service quality metrics for each of the wire centers that had been

24. Verizon California GO-133-C Quarterly Report, 1Q15.

25. Frontier California responses to CD Data Requests 11-F-07, 13-F-02.

26. Frontier California response to CD Data Requests 11-F-07, 13-F-01.

27. *Id.*

28. *Id.*

29. CD Staff has advised us that Verizon offered broadband in 85,973 Census blocks in California at the end of 2015. As of that date there were an estimated 2,645,000 households in those 85,973 Census blocks. Thus, approximately 2,645,000 households in California were passed by *FiOS*-capable facilities as of that date.

30. Frontier California Response to CD Data Request 13-F-3.

31. Frontier Response to CD DR 11-F-06, "Attachment 11-F-6 - Confidential Wire Center Name and CLLI Code Data.xlsx".

32. Frontier California response to CD Data Requests 11-F-07, 13-F-01.

consolidated. As a consequence, the Commission can no longer track GO-133 C/D service quality performance at the wire center level for roughly half of all Frontier wire centers. Additionally, because some data continues to be reported at the individual wire center level, these consolidations have made it difficult to accurately integrate multiple datasets for analysis purposes. Henceforth in this Report, we shall refer to Frontier "reporting units" rather than as wire centers.

Notably, the greatest demand drop-offs generally occurred in the largest reporting units:

Over the 2016-2019 Frontier ownership period, POTS access lines in service experienced a 52.3% decrease, dropping from 1,201,218 to 572,975. Thus, in less than four years after taking over the ILEC, more than half of Frontier California's POTS customers had discontinued their service.

Table 4F.1

FRONTIER CALIFORNIA
DROP-OFF IN POTS DEMAND AT REPORTING UNITS OF VARYING SIZES
APRIL 2016 – DECEMBER 2019

	April 1, 2016		December 2017		December 2019	
Reporting Unit Size	Reporting Units	Total lines	Reporting Units	Total lines	Reporting Units	Total lines
0-1,000	81	30,422	88	30,805	101	32,267
1,001-3,000	29	51,011	40	77,591	35	60,164
3,001-10,000	45	269,117	43	290,377	48	272,928
10,001-20,000	27	378,236	19	268,812	12	163,538
20,000+	16	472,432	8	211,904	2	44,078
TOTAL	198	1,201,218	198	879,489	198	572,975

Figure 4F.1 below tracks total Frontier California POTS access lines in service over the entire 2016-2019 period.

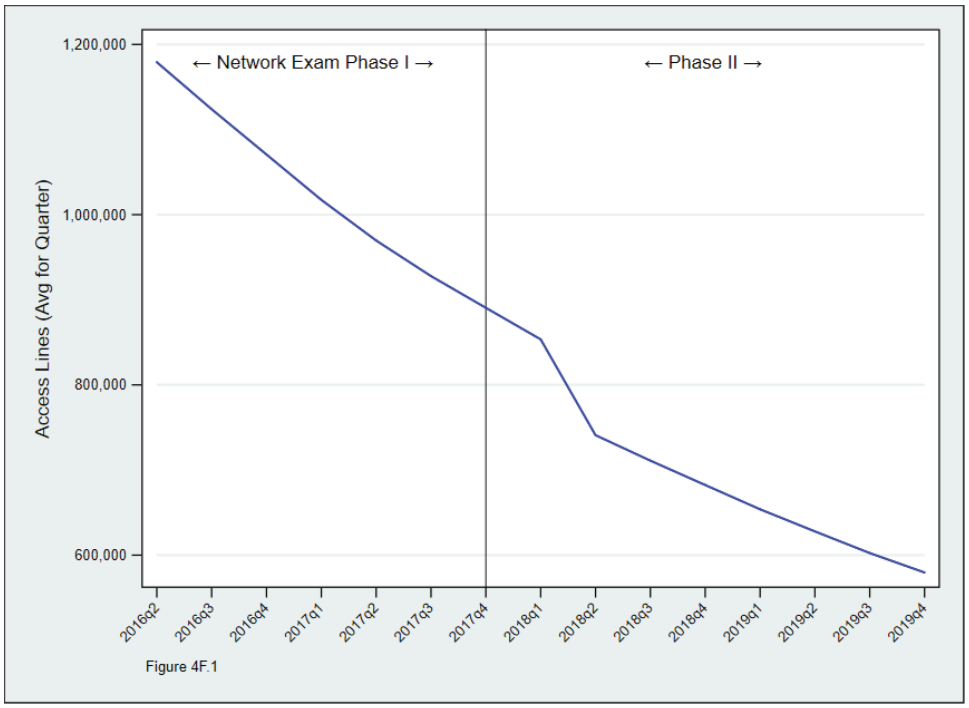

Figure 4F.1. Frontier California has lost more than half of its POTS Access Lines in Service since taking over the company in 2016.

Trouble Reports and POTS Lines in service – a more granular perspective

Viewed at the individual reporting unit level, the ratio of out-of-service conditions to total POTS lines has varied both from month-to-month and as a long-term trend over time. Focusing specifically upon out-of-service conditions not cleared after 24 hours, some wire centers have experienced significant increases in the incidence of this condition, while others have seen improvements. The following Tables summarize the most recent 24 months' (2018-2019) experience, all under Frontier ownership, with respect to four service quality metrics. Each table provides the 20 wire centers with the poorest and the 10 wire centers with the best performance with respect to each of these four metrics. Table 4F.2 presents the percentages of out-of-service conditions not cleared within 24 hours (expressed on a per 100 POTS lines per month basis). Table 4F.3 provides the average out-of-service durations. Table 4F.4 provides the percentages of out-of-service incidents cleared within 24 hours. Table 4F.5 provides the number of days to clear 90% of out-of-service conditions. Table 4F.6 provides all of these data elements for all post-acquisition Frontier reporting units, sorted alphabetically.

Table 4F.2

FRONTIER CALIFORNIA
OUT-OF-SERVICE OVER 24 HOURS' DURATION PER 100 POTS LINES IN SERVICE
20 POOREST PERFORMING AND 10 BEST PERFORMING WIRE CENTERS
2018-2019

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
20 POOREST PERFORMING WIRE CENTERS																	
DESERT CENTER	DSCTCAXG	20	10.87	5.12	52.9%	68.6%	3.9	4.0	3291	2761	51	51	24	5	46	16	3
BADGER	BDGRCAXF	67	6.01	4.96	17.5%	50.5%	10.5	11.9	7419	6286	97	97	80	28	71	48	14
SALTON CITY	SLCYCAXF	142	6.97	4.83	30.7%	54.2%	5.0	4.4	3958	3278	238	237	165	23	190	109	11
MIRANTPHST	MRMNCASF	77	5.13	4.26	16.8%	41.1%	13.5	12.8	9207	7551	95	95	79	41	74	56	27
DUNLAP	DNLPCAXF	223	6.26	4.19	33.1%	49.6%	9.0	7.7	5398	4501	335	335	224	67	285	169	47
BERRENDA MESA	BRMSCAXF	19	4.61	3.73	19.0%	61.9%	5.7	4.9	5162	3592	21	21	17	3	12	8	0
DESERT SHORES	DSSHCAXF	73	3.63	2.78	23.4%	54.7%	5.3	4.4	3352	2942	64	64	49	4	45	29	1
CUCAMONGA (SAGE)	CCMNCAXF	494	3.76	2.46	34.4%	53.5%	5.5	4.5	4196	3265	445	443	292	53	367	207	28
SNELLING	SNNGCAXG	130	3.02	2.41	20.2%	50.0%	6.2	4.4	4769	3301	94	94	75	18	67	47	1
SQUAW VALLEY	SVYFCAXF	133	3.21	2.20	31.4%	46.1%	10.4	8.7	6116	5029	102	102	70	25	90	55	15
NEWBERRY SPRINGS	NWBRCAXF	178	3.42	2.15	37.0%	62.3%	7.8	5.9	4589	3802	146	146	92	26	113	55	16
TIVY VALLEY	TVVYCAXF	469	3.45	1.98	42.5%	64.4%	5.7	4.3	4006	2981	388	384	223	67	308	138	30
LEGGETT	LGGTCAXF	65	2.62	1.92	26.8%	48.8%	15.9	5.4	8054	4961	41	41	30	14	32	21	6
MAD RIVER	MDRVCAXF	175	2.04	1.88	8.1%	37.2%	13.6	11.6	9923	8381	86	86	79	38	61	54	21
COVELO	CVELCAXF	496	2.33	1.81	22.4%	48.7%	14.9	10.7	7894	6134	277	274	215	73	214	142	35
ANZA	ANZACAXF	354	2.77	1.78	35.7%	58.7%	6.4	5.4	5089	3859	235	234	151	42	196	97	20
GLENNVILLE	GLVLCAXF	343	1.90	1.70	10.8%	40.8%	11.4	7.9	7252	5622	157	157	140	44	113	93	20
SUMMIT VLY	SMVYCAXF	52	2.64	1.68	36.4%	66.7%	6.1	5.9	3180	2502	33	33	21	2	24	11	1
ALDERPOINT	ALPNCAXF	91	2.21	1.66	25.0%	45.8%	23.3	25.5	9281	9123	48	48	36	16	38	26	9
CALIFORNIA HOT SPRINGS	CHSPCAXF	283	2.18	1.65	24.3%	56.1%	9.0	6.6	5941	3947	148	146	112	30	104	65	8
10 BEST PERFORMING WIRE CENTERS																	
HERMOSA BEACH/MANHATTAN BI	HRBHCAXA/	24438	0.36	0.17	52.0%	71.5%	4.4	2.8	2715	1949	2100	2084	1007	118	1754	598	44
REDONDO BEACH	RDBHCAXF	1031	0.32	0.17	47.5%	77.5%	3.0	2.0	2212	1524	80	80	42	0	58	18	0
MORENO/EDGEMONT/SUNNYMEA	LNCSCAXF/I	7832	0.34	0.17	51.2%	69.6%	4.6	3.2	3103	2270	644	639	314	51	530	196	20
THOUSAND OAKS	THOKCAXF	8683	0.30	0.17	43.7%	64.1%	6.7	5.1	4434	3322	616	611	347	100	495	221	52
CAMARILLO	CMRLCAXF	7778	0.28	0.16	40.5%	64.7%	5.2	3.2	3237	2225	516	511	307	45	397	182	16
EL RIO	ELRICAXF	5625	0.28	0.16	43.7%	67.3%	5.1	3.9	2864	2136	382	380	215	31	299	125	14
MURRIETA	MURTCAXF	7128	0.29	0.15	47.8%	69.4%	4.2	3.4	3029	2365	500	497	261	31	398	153	8
CHINO/LOS SERRANOS	CHNOCAXF/	12546	0.34	0.15	56.8%	73.0%	2.9	1.7	1960	1478	1022	1018	441	18	874	276	8
NEWBURY PARK	NWPKCAXF	5539	0.18	0.11	38.7%	62.1%	7.9	5.1	7056	5816	243	240	149	51	186	92	21
FORT IRWIN	FTIRCAXF	159	0.05	0.00	100.0%	100.0%	0.4	0.4	492	492	2	2	0	0	2	0	0

Table 4F.3

FRONTIER CALIFORNIA
AVERAGE OUT-OF-SERVICE DURATION
20 POOREST PERFORMING AND 10 BEST PERFORMING WIRE CENTERS
2018-2019

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
20 POOREST PERFORMING WIRE CENTERS																	
VTVL HSPR (GLENDORA)	HSPRCAXF	4	1.09	1.09	0.0%	0.0%	11.2	10.2	16080	14640	1	1	1	1	1	1	1
TOPANGA	TPNGCAXF	610	0.81	0.72	10.2%	56.8%	24.5	12.7	12979	7689	118	118	106	51	66	51	18
INDEPENDENCE	INDPCAXF	122	0.92	0.61	33.3%	66.7%	16.3	14.9	11662	10962	27	27	18	9	19	9	6
MALIBU	MALBCAXG,	4397	0.47	0.33	28.8%	63.3%	18.1	9.8	10893	6820	493	487	351	134	323	181	52
MAD RIVER	MDRVCAXF	175	2.04	1.88	8.1%	37.2%	13.6	11.6	9923	8381	86	86	79	38	61	54	21
SANTA PAULA	SNPLCAXF	2236	1.21	0.89	26.9%	55.1%	21.9	17.3	9409	6793	650	650	475	169	474	292	99
ALDERPOINT	ALPNCAXF	91	2.21	1.66	25.0%	45.8%	23.3	25.5	9281	9123	48	48	36	16	38	26	9
MIRANTPHST	MRMNCASF	77	5.13	4.26	16.8%	41.1%	13.5	12.8	9207	7551	95	95	79	41	74	56	27
BEL AIR (SOMIS)	BELRCAXF	433	1.05	0.78	25.7%	54.1%	10.5	7.7	8076	5927	109	109	81	25	82	50	12
LEGGETT	LGGTCAXF	65	2.62	1.92	26.8%	48.8%	15.9	5.4	8054	4961	41	41	30	14	32	21	6
KENWOOD	KNWDCAXF	317	1.20	1.03	14.3%	50.5%	8.6	6.8	7903	3966	91	91	78	23	61	45	8
COVELO	CVELCAXF	496	2.33	1.81	22.4%	48.7%	14.9	10.7	7894	6134	277	274	215	73	214	142	35
LAYTONVILLE	LYVLCAXF	690	1.70	1.25	26.6%	55.0%	14.1	11.5	7839	6196	282	279	207	78	204	127	41
OLANCHA (OJAI)	OLNCCAXF	89	0.89	0.80	10.5%	63.2%	13.6	12.5	7690	9729	19	19	17	6	9	7	2
BADGER	BDGRCAXF	67	6.01	4.96	17.5%	50.5%	10.5	11.9	7419	6286	97	97	80	28	71	48	14
GLENNVILLE	GLVLCAXF	343	1.90	1.70	10.8%	40.8%	11.4	7.9	7252	5622	157	157	140	44	113	93	20
NEWBURY PARK	NWPKCAXF	5539	0.18	0.11	38.7%	62.1%	7.9	5.1	7056	5816	243	240	149	51	186	92	21
CAZADERO	CZDRCAXG	363	1.76	1.28	27.5%	55.6%	10.5	8.6	7022	5849	153	152	111	42	115	68	27
MORONGO VALLEY	MRVYCAXF	332	2.41	1.62	32.8%	57.3%	9.9	8.3	6810	5299	192	191	129	67	150	82	35
SANTA MARIA/ORCUTT	SNTMCAXF	9508	0.35	0.22	38.8%	57.0%	6.5	5.3	6672	5874	810	807	496	110	678	348	65
10 BEST PERFORMING WIRE CENTERS																	
POMONA	POMNCAXF	5820	0.53	0.27	48.8%	70.1%	3.6	2.1	2444	1794	742	740	380	20	596	222	7
CLEMENTS	CLEMCAXF	262	1.72	0.75	56.5%	76.9%	4.5	2.9	2399	1702	108	107	47	7	88	25	2
LINDEN	LNDNCAXF	598	1.16	0.68	41.3%	67.7%	3.5	2.2	2338	1583	167	167	98	1	131	54	0
REDONDO BEACH	RDBHCAXF	1031	0.32	0.17	47.5%	77.5%	3.0	2.0	2212	1524	80	80	42	0	58	18	0
MCFARLAND	MCFACAXF	634	1.39	0.68	51.4%	75.0%	3.5	2.0	2191	1490	212	209	103	8	164	53	2
CALIFORNIA CITY	CFCYCAXF	969	0.98	0.41	58.1%	75.8%	4.0	2.0	2157	1380	227	226	95	9	191	55	2
LANCASTER ANTELOPE (HI VISTA	LNCSCAXF	58	1.36	0.50	63.2%	68.4%	4.9	4.3	2152	1839	19	19	7	1	18	6	1
CHINO/LOS SERRANOS	CHNOCAXF,	12546	0.34	0.15	56.8%	73.0%	2.9	1.7	1960	1478	1022	1018	441	18	874	276	8
PARKFIELD	PRFDCAXF	22	0.96	0.58	40.0%	100.0%	1.8	0.8	1380	676	5	5	3	0	5	0	0
FORT IRWIN	FTIRCAXF	159	0.05	0.00	100.0%	100.0%	0.4	0.4	492	492	2	2	0	0	2	0	0

Table 4F.4

FRONTIER CALIFORNIA
PERCENT OUT-OF-SERVICE CLEARED WITHIN 24 HOURS
20 POOREST PERFORMING AND 10 BEST PERFORMING WIRE CENTERS
2018-2019

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
20 POOREST PERFORMING WIRE CENTERS																	
WALNUT	WLNTCAXF	5	0.80	0.80	0.0%	0.0%	4.1	3.1	5929	4489	1	1	1	0	1	1	0
VTVL HSPR (GLENDORA)	HSPRCAXF	4	1.09	1.09	0.0%	0.0%	11.2	10.2	16080	14640	1	1	1	1	1	1	1
MAD RIVER	MDRVCAXF	175	2.04	1.88	8.1%	37.2%	13.6	11.6	9923	8381	86	86	79	38	61	54	21
TOPANGA	TPNGCAXF	610	0.81	0.72	10.2%	56.8%	24.5	12.7	12979	7689	118	118	106	51	66	51	18
OLANCHA (OJAI)	OLNCCAXF	89	0.89	0.80	10.5%	63.2%	13.6	12.5	7690	9729	19	19	17	6	9	7	2
GLENNVILLE	GLVLCAXF	343	1.90	1.70	10.8%	40.8%	11.4	7.9	7252	5622	157	157	140	44	113	93	20
RANDSBURG	RNBGCAXF	42	0.69	0.59	14.3%	71.4%	8.0	3.6	6298	2958	7	7	6	2	4	2	0
KENWOOD	KNWDCAXF	317	1.20	1.03	14.3%	50.5%	8.6	6.8	7903	3966	91	91	78	23	61	45	8
WILLOW CRK	WWCKCAXF	804	1.16	0.98	15.2%	49.8%	8.0	6.4	5767	4230	223	223	189	50	153	112	16
ROBBINS	RBNSCAXG	74	1.46	1.24	15.4%	53.8%	5.6	2.6	3892	2168	26	26	22	2	16	12	0
MIRANTPHST	MRMNCASF	77	5.13	4.26	16.8%	41.1%	13.5	12.8	9207	7551	95	95	79	41	74	56	27
BADGER	BDGRCAXF	67	6.01	4.96	17.5%	50.5%	10.5	11.9	7419	6286	97	97	80	28	71	48	14
TRONA	TRONCAXF	440	1.49	1.21	18.5%	44.6%	9.0	5.8	5242	3884	157	157	128	27	121	87	11
HOOPA	HOPACAXF	519	0.64	0.52	18.8%	43.8%	6.1	4.7	4454	3432	80	80	65	11	61	45	4
BERRENDA MESA	BRMSCAXF	19	4.61	3.73	19.0%	61.9%	5.7	4.9	5162	3592	21	21	17	3	12	8	0
SNELLING	SNNGCAXG	130	3.02	2.41	20.2%	50.0%	6.2	4.4	4769	3301	94	94	75	18	67	47	1
BENTON	BNTNCAXF	96	1.82	1.43	21.4%	61.9%	6.8	4.5	4512	3060	42	42	33	6	24	16	0
EL MIRAGE	ELMGCAXF	81	1.44	1.13	21.4%	42.9%	7.8	6.4	6515	5596	28	28	22	5	22	16	4
COVELO	CVELCAXF	496	2.33	1.81	22.4%	48.7%	14.9	10.7	7894	6134	277	274	215	73	214	142	35
SOLVANG (SANTA YNEZ)	SLVNCAXG	4073	0.89	0.69	22.6%	47.4%	9.8	8.8	6115	5064	871	868	674	172	663	458	90
10 BEST PERFORMING WIRE CENTERS																	
MCFARLAND	MCFACAXF	634	1.39	0.68	51.4%	75.0%	3.5	2.0	2191	1490	212	209	103	8	164	53	2
HERMOSA BEACH/MANHATTAN BI	HRBHCAXA	24438	0.36	0.17	52.0%	71.5%	4.4	2.8	2715	1949	2100	2084	1007	118	1754	598	44
EXETER	EXTRCAXF	1580	1.04	0.50	52.2%	74.2%	4.3	2.5	2774	1783	395	391	189	25	315	102	8
BIG BEAR CITY	BBCYCAXF	1537	0.73	0.34	52.6%	78.4%	5.6	2.6	3008	1609	268	264	127	26	209	58	3
DESERT CENTER	DSCTCAXG	20	10.87	5.12	52.9%	68.6%	3.9	4.0	3291	2761	51	51	24	5	46	16	3
CLEMENTS	CLEMCAXF	262	1.72	0.75	56.5%	76.9%	4.5	2.9	2399	1702	108	107	47	7	88	25	2
CHINO/LOS SERRANOS	CHNOCAXF	12546	0.34	0.15	56.8%	73.0%	2.9	1.7	1960	1478	1022	1018	441	18	874	276	8
CALIFORNIA CITY	CFCYCAXF	969	0.98	0.41	58.1%	75.8%	4.0	2.0	2157	1380	227	226	95	9	191	55	2
LANCASTER ANTELOPE (HI VISTA	LNCSCAXF	58	1.36	0.50	63.2%	68.4%	4.9	4.3	2152	1839	19	19	7	1	18	6	1
FORT IRWIN	FTIRCAXF	159	0.05	0.00	100.0%	100.0%	0.4	0.4	492	492	2	2	0	0	2	0	0

Table 4F.5

FRONTIER CALIFORNIA
DAYS REQUIRED TO CLEAR 90% OF OUT-OF-SERVICE CONDITIONS
20 POOREST PERFORMING AND 10 BEST PERFORMING WIRE CENTERS
2018-2019

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
20 POOREST PERFORMING WIRE CENTERS																	
TOPANGA	TPNGCAXF	610	0.81	0.72	10.2%	56.8%	24.5	12.7	12979	7689	118	118	106	51	66	51	18
ALDERPOINT	ALPNCAXF	91	2.21	1.66	25.0%	45.8%	23.3	25.5	9281	9123	48	48	36	16	38	26	9
SANTA PAULA	SNPLCAXF	2236	1.21	0.89	26.9%	55.1%	21.9	17.3	9409	6793	650	650	475	169	474	292	99
MALIBU	MALBCAXG,	4397	0.47	0.33	28.8%	63.3%	18.1	9.8	10893	6820	493	487	351	134	323	181	52
INDEPENDENCE	INDPCAXF	122	0.92	0.61	33.3%	66.7%	16.3	14.9	11662	10962	27	27	18	9	19	9	6
LEGGETT	LGGTCAXF	65	2.62	1.92	26.8%	48.8%	15.9	5.4	8054	4961	41	41	30	14	32	21	6
GRANT GROVE VILLAGE	GGVGCAXF	246	1.08	0.76	29.7%	64.1%	15.0	14.7	5748	5365	64	63	45	12	41	23	7
COVELO	CVELCAXF	496	2.33	1.81	22.4%	48.7%	14.9	10.7	7894	6134	277	274	215	73	214	142	35
LAYTONVILLE	LYVLCAXF	690	1.70	1.25	26.6%	55.0%	14.1	11.5	7839	6196	282	279	207	78	204	127	41
OLANCHA (OJAI)	OLNCCAXF	89	0.89	0.80	10.5%	63.2%	13.6	12.5	7690	9729	19	19	17	6	9	7	2
MAD RIVER	MDRVCAXF	175	2.04	1.88	8.1%	37.2%	13.6	11.6	9923	8381	86	86	79	38	61	54	21
MIRANTPHST	MRMNCASF	77	5.13	4.26	16.8%	41.1%	13.5	12.8	9207	7551	95	95	79	41	74	56	27
LEE VINING	LVNGCAXF	133	0.78	0.53	32.0%	56.0%	13.3	13.6	6617	6108	25	25	17	8	19	11	5
BRIDGEPORT	BRPTCAXF	443	0.73	0.49	33.3%	60.3%	12.0	8.9	6319	4497	78	78	52	18	59	31	9
GLENNVILLE	GLVLCAXF	343	1.90	1.70	10.8%	40.8%	11.4	7.9	7252	5622	157	157	140	44	113	93	20
VTVL HSPR (GLENDORA)	HSPRCAXF	4	1.09	1.09	0.0%	0.0%	11.2	10.2	16080	14640	1	1	1	1	1	1	1
BADGER	BDGRCAXF	67	6.01	4.96	17.5%	50.5%	10.5	11.9	7419	6286	97	97	80	28	71	48	14
BEL AIR (SOMIS)	BELRCAXF	433	1.05	0.78	25.7%	54.1%	10.5	7.7	8076	5927	109	109	81	25	82	50	12
CAZADERO	CZDRCAXG	363	1.76	1.28	27.5%	55.6%	10.5	8.6	7022	5849	153	152	111	42	115	68	27
SQUAW VALLEY	SVYFCAXF	133	3.21	2.20	31.4%	46.1%	10.4	8.7	6116	5029	102	102	70	25	90	55	15
10 BEST PERFORMING WIRE CENTERS																	
ETIWANDA	ETWNCAXF	1885	0.52	0.30	41.7%	65.1%	3.8	2.9	3135	2489	235	234	137	12	187	82	6
ONTARIO/ONTARIO SOUTH/ONTA	ONTRCAX/C	12929	0.36	0.19	45.5%	67.5%	3.7	2.7	2722	1978	1103	1099	601	53	875	359	14
SUN CITY/QUAIL VALLEY	SNCYCAXF/	4552	0.55	0.29	47.7%	68.9%	3.6	2.6	2891	2094	598	594	313	26	482	186	7
POMONA	POMNCAXF	5820	0.53	0.27	48.8%	70.1%	3.6	2.1	2444	1794	742	740	380	20	596	222	7
LINDEN	LNDNCAXF	598	1.16	0.68	41.3%	67.7%	3.5	2.2	2338	1583	167	167	98	1	131	54	0
MCFARLAND	MCFACAXF	634	1.39	0.68	51.4%	75.0%	3.5	2.0	2191	1490	212	209	103	8	164	53	2
REDONDO BEACH	RDBHCAXF	1031	0.32	0.17	47.5%	77.5%	3.0	2.0	2212	1524	80	80	42	0	58	18	0
CHINO/LOS SERRANOS	CHNOCAXF,	12546	0.34	0.15	56.8%	73.0%	2.9	1.7	1960	1478	1022	1018	441	18	874	276	8
PARKFIELD	PRFDCAXF	22	0.96	0.58	40.0%	100.0%	1.8	0.8	1380	676	5	5	3	0	5	0	0
FORT IRWIN	FTIRCAXF	159	0.05	0.00	100.0%	100.0%	0.4	0.4	492	492	2	2	0	0	2	0	0

Table 4F.6

FRONTIER CALIFORNIA
TROUBLE REPORT OUT-OF-SERVICE DATA
2018-2019

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
ADELANTO	ADLNCAXF	1584	0.59	0.34	43.1%	75.1%	5.7	4.6	3752	2431	225	224	128	33	156	56	8
ALDERPOINT	ALPNCAXF	91	2.21	1.66	25.0%	45.8%	23.3	25.5	9281	9123	48	48	36	16	38	26	9
ALPAUGH	ALPGCAXF	70	2.39	1.37	42.5%	65.0%	5.9	3.7	3066	2106	40	40	23	1	32	14	1
ANZA	ANZACAXF	354	2.77	1.78	35.7%	58.7%	6.4	5.4	5089	3859	235	234	151	42	196	97	20
APPLE VALLEY/DESERT KNOLLS	APVYCAXF/I	4222	0.76	0.46	38.6%	64.3%	6.0	4.5	3841	2620	765	764	470	110	593	273	45
ARROWHEAD	ARHDCAXF	1968	0.91	0.53	41.1%	72.7%	7.3	4.2	4283	2313	428	427	252	62	315	117	20
AZUSA/GLENDORA	AZUSCAXF/I	7129	0.75	0.41	45.2%	69.2%	4.6	3.4	3060	2089	1284	1275	703	99	1015	396	36
BADGER	BDGRCAXF	67	6.01	4.96	17.5%	50.5%	10.5	11.9	7419	6286	97	97	80	28	71	48	14
BANNING/BEAUMONT	BNNGCAXF/	4345	0.72	0.45	37.6%	59.6%	5.7	4.4	3968	3058	750	744	468	92	592	303	34
BARSTOW/BARSTOW SOUTH	BRSWCAXH	1889	0.94	0.54	42.2%	65.6%	6.6	4.9	4055	2813	424	419	245	64	321	146	26
BEL AIR (SOMIS)	BELRCAXF	433	1.05	0.78	25.7%	54.1%	10.5	7.7	8076	5927	109	109	81	25	82	50	12
BENTON	BNTNCAXF	96	1.82	1.43	21.4%	61.9%	6.8	4.5	4512	3060	42	42	33	6	24	16	0
BERRENDA MESA	BRMSCAXF	19	4.61	3.73	19.0%	61.9%	5.7	4.9	5162	3592	21	21	17	3	12	8	0
BIG BEAR CITY	BBCYCAXF	1537	0.73	0.34	52.6%	78.4%	5.6	2.6	3008	1609	268	264	127	26	209	58	3
BIG BEAR LAKE	BBLKCAXF	1340	0.62	0.30	51.0%	82.5%	6.6	2.3	3565	1466	200	200	98	22	141	35	1
BIG PINE	BGPICAXF	167	0.80	0.55	31.3%	56.3%	6.4	4.7	3966	2967	32	32	22	5	26	14	2
BISHOP	BSHPCAXG	1887	0.63	0.38	39.4%	56.7%	5.9	4.9	4163	3302	284	283	172	40	241	123	20
BORON/NORTH EDWARDS	BORNCAXF/	323	1.18	0.66	44.0%	64.8%	5.7	4.0	3202	2163	91	91	51	8	74	32	3
BRIDGEPORT	BRPTCAXF	443	0.73	0.49	33.3%	60.3%	12.0	8.9	6319	4497	78	78	52	18	59	31	9
BRSW YERM/YERMO	YERMCAXF	252	1.85	1.16	37.5%	64.3%	5.8	4.6	4023	3332	112	112	70	15	84	40	8
BUTTONWILLOW	BTNWCAXF	310	1.52	1.10	27.4%	57.5%	6.2	5.0	4671	3485	113	113	82	23	85	48	9
CALIFORNIA CITY	CFCYCAXF	969	0.98	0.41	58.1%	75.8%	4.0	2.0	2157	1380	227	226	95	9	191	55	2
CALIFORNIA HOT SPRINGS	CHSPCAXF	283	2.18	1.65	24.3%	56.1%	9.0	6.6	5941	3947	148	146	112	30	104	65	8
CALIMESA/YUCAIPA	CLMSCAXF/	4360	0.92	0.61	33.0%	55.1%	6.5	4.8	4252	3126	960	951	643	143	761	431	63
CAMARILLO	CMRLCAXF	7778	0.28	0.16	40.5%	64.7%	5.2	3.2	3237	2225	516	511	307	45	397	182	16
CANTUA CREEK	CNCKCAXF	71	1.99	1.52	23.5%	47.1%	8.6	5.8	5290	3521	34	34	26	5	25	18	2
CARPINTERIA	CRPRCAXF	1881	1.18	0.73	38.3%	59.3%	6.7	4.6	5540	4009	533	531	329	62	442	217	32
CAZADERO	CZDRCAXG	363	1.76	1.28	27.5%	55.6%	10.5	8.6	7022	5849	153	152	111	42	115	68	27
CHINO/LOS SERRANOS	CHNOCAXF/	12546	0.34	0.15	56.8%	73.0%	2.9	1.7	1960	1478	1022	1018	441	18	874	276	8
CLAREMONT/LA VERNE/SAN DIMA	CLMTCAXF/	14088	0.50	0.27	45.7%	66.8%	4.1	2.7	2634	1926	1680	1674	912	75	1379	557	27
CLEMENTS	CLEMCAXF	262	1.72	0.75	56.5%	76.9%	4.5	2.9	2399	1702	108	107	47	7	88	25	2
COLFAX	CLFXCAXF	735	1.29	0.84	34.4%	64.8%	4.2	2.7	2944	1943	227	227	149	11	169	80	0
CORCORAN	CRCRCAXF	760	1.74	1.20	31.1%	54.4%	7.1	4.8	4207	3005	318	318	219	36	249	145	16
COVELO	CVELCAXF	496	2.33	1.81	22.4%	48.7%	14.9	10.7	7894	6134	277	274	215	73	214	142	35
COVINA	COVNCAXF	18323	0.57	0.29	49.0%	70.8%	4.5	3.1	2886	1953	2502	2491	1276	161	2046	731	49
CRESTLINE	CRLNCAXF	1203	1.39	0.85	38.7%	71.3%	7.1	4.8	4415	2670	401	401	246	55	288	115	17
CROWLEY LAKE	CRLKCAXF	237	0.54	0.35	35.5%	58.1%	4.4	4.2	3291	2256	31	31	20	2	26	13	1
CUCAMONGA (SAGE)	CCMNCAXF	494	3.76	2.46	34.4%	53.5%	5.5	4.5	4196	3265	445	443	292	53	367	207	28
CUYAMA	CUYMCAXF	155	1.23	0.91	26.1%	71.7%	7.0	9.1	6188	4994	46	46	34	12	26	13	2
DESERT CENTER	DSCTCAXG	20	10.87	5.12	52.9%	68.6%	3.9	4.0	3291	2761	51	51	24	5	46	16	3
DESERT HOT SPRINGS	DHSPCAXF	1824	2.38	1.49	37.2%	63.3%	4.7	3.5	3834	2651	1041	1037	654	84	797	382	28
DESERT SHORES	DSSHCAXF	73	3.63	2.78	23.4%	54.7%	5.3	4.4	3352	2942	64	64	49	4	45	29	1
DIAMOND BAR	DMBRCAXF	8178	0.31	0.18	43.1%	66.7%	4.5	3.2	2904	2130	612	607	348	36	479	204	15
DOS PALOS/ORO LOMA	DSPLCAXF/I	784	1.51	1.01	32.7%	62.3%	5.7	4.7	3495	2555	284	284	191	23	206	107	10
DOWNEY/DOWNEY IMPERIAL/BEL	DWNYCAXF	9517	0.90	0.48	46.8%	69.5%	6.0	4.5	3502	2436	2046	2040	1089	266	1638	624	114
DUNLAP	DNLPCAXF	223	6.26	4.19	33.1%	49.6%	9.0	7.7	5398	4501	335	335	224	67	285	169	47
EL MIRAGE	ELMGCAXF	81	1.44	1.13	21.4%	42.9%	7.8	6.4	6515	5596	28	28	22	5	22	16	4
EL RIO	ELRICAXF	5625	0.28	0.16	43.7%	67.3%	5.1	3.9	2864	2136	382	380	215	31	299	125	14
ELLWOOD (GAVIOTA)	ELWDCAXF	178	1.12	0.70	37.5%	62.5%	9.7	7.9	5511	4240	48	48	30	10	36	18	6

Table 4F.6 (continued)

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
ELSINORE GRANDE/ELSINORE M/	ELSNCAXG/	3714	0.51	0.28	45.9%	70.8%	4.2	2.5	2843	1904	455	454	246	23	352	133	7
ETIWANDA	ETWNCAXF	1885	0.52	0.30	41.7%	65.1%	3.8	2.9	3135	2489	235	234	137	12	187	82	6
EXETER	EXTRCAXF	1580	1.04	0.50	52.2%	74.2%	4.3	2.5	2774	1783	395	391	189	25	315	102	8
FARMERSVILLE	FRVLCAXF	438	1.66	0.96	42.3%	65.1%	4.8	3.4	3087	2246	175	175	101	18	141	61	5
FARMINGTON	FRTNCAXF	148	1.40	0.73	48.0%	76.0%	5.1	3.1	3032	1983	50	50	26	4	38	12	1
FORT IRWIN	FTIRCAXF	159	0.05	0.00	100.0%	100.0%	0.4	0.4	492	492	2	2	0	0	2	0	0
FOWLER	FWLRCAXF	1236	1.54	0.83	46.0%	64.8%	4.5	3.4	3005	2306	457	456	247	39	385	161	11
GARBERVILLE	GRVLCAXF	893	1.63	1.01	37.8%	52.4%	8.3	6.0	4525	3245	349	345	217	56	301	166	26
GILROY	GLRYCAXF	5921	0.72	0.49	32.4%	58.2%	7.2	5.5	5329	3816	1030	1026	696	265	785	431	100
GLENNVILLE	GLVLCAXF	343	1.90	1.70	10.8%	40.8%	11.4	7.9	7252	5622	157	157	140	44	113	93	20
GRANADA HILLS	GRHLCAXF	5224	0.64	0.36	44.3%	67.8%	5.4	4.3	3574	2490	804	802	448	77	634	259	39
GRANT GROVE VILLAGE	GGVGCAXF	246	1.08	0.76	29.7%	64.1%	15.0	14.7	5748	5365	64	63	45	12	41	23	7
GUADALUPE	GDLPCAXG	844	0.34	0.22	34.8%	55.1%	7.9	5.1	4520	2971	69	69	45	15	57	31	7
HAYFORK	HYFKCAXF	548	0.94	0.54	42.3%	61.0%	5.5	4.4	3462	2525	123	122	71	16	102	48	5
HEMET/VALLE VISTA	HEMTCAXF/	6004	0.64	0.35	44.4%	67.8%	6.5	4.9	4069	3165	917	914	510	110	721	295	57
HERMOSA BEACH/MANHATTAN BI	HRBHCAXA/	24438	0.36	0.17	52.0%	71.5%	4.4	2.8	2715	1949	2100	2084	1007	118	1754	598	44
HESPERIA	HSPRCAXF	5433	0.80	0.44	44.9%	65.8%	6.0	4.5	3734	2681	1039	1036	572	143	839	355	77
HOMELAND	HMLDCAXF	1113	1.55	0.82	47.1%	67.1%	4.5	3.2	3037	2279	414	411	219	25	335	136	6
HOMESTEAD VALLEY	HMVYCAXF	504	1.82	1.21	33.2%	59.1%	6.9	4.8	4286	2889	220	220	147	34	170	90	11
HOOPA	HOPACAXF	519	0.64	0.52	18.8%	43.8%	6.1	4.7	4454	3432	80	80	65	11	61	45	4
HUNTINGTON BEACH	HNBHCAXG	13746	0.71	0.42	40.5%	63.0%	6.6	4.8	4197	2882	2357	2344	1402	305	1884	871	134
IDYLLWILD	IDYLCAXF	1126	0.98	0.64	34.7%	65.3%	6.0	4.1	4246	3018	265	265	173	45	192	92	12
INDEPENDENCE	INDPCAXF	122	0.92	0.61	33.3%	66.7%	16.3	14.9	11662	10962	27	27	18	9	19	9	6
INDIO/LA QUINTA/MECCA/NORTH	INDICAXG/L	9775	1.57	0.92	41.4%	65.2%	4.9	3.5	3397	2526	3677	3665	2154	308	2857	1280	113
INYOKERN	INYKCAXF	467	1.60	0.90	43.6%	65.4%	9.4	6.1	5410	3627	179	178	101	36	144	62	18
JOSHUA TREE	JSTRCAXF	632	0.90	0.58	35.8%	61.3%	6.9	5.2	5120	4115	137	137	88	34	109	53	19
JUNE LAKE	JNLKCAXF	283	0.44	0.31	30.0%	40.0%	5.5	3.9	4540	3907	30	30	21	3	28	18	1
KENWOOD	KNWDCAXF	317	1.20	1.03	14.3%	50.5%	8.6	6.8	7903	3966	91	91	78	23	61	45	8
KERNVILLE	KRVLCAXF	851	1.39	0.93	32.5%	56.9%	8.7	6.8	5366	3960	283	283	191	58	219	122	37
KNIGHTS LANDING	KNLDCAXF	134	1.46	1.06	27.7%	63.8%	5.4	3.3	3936	2375	47	47	34	4	30	17	0
LA HABRA/WHITTIER LA HABRA	LAHBCAXF/\	7474	0.82	0.48	41.2%	66.7%	6.5	5.0	4045	3036	1477	1473	868	210	1144	492	83
LA PUENTE	LAPNCAXG/	13818	0.72	0.36	49.8%	70.3%	4.2	2.7	2724	1909	2396	2386	1202	124	1953	712	45
LAGUNA BEACH/SOUTH LAGUNA	LGBHCAXF/	2634	0.75	0.47	36.7%	61.7%	7.8	5.6	4443	3180	472	471	299	59	372	181	33
LAKE HUGHES	LKHGCAXF	576	1.32	0.78	41.0%	71.0%	6.9	4.7	4123	2563	183	182	108	29	137	53	13
LAKE ISABELLA	LKISCAXF	1155	1.20	0.75	37.2%	60.4%	7.9	7.3	4532	3726	333	332	209	50	262	132	40
LANCASTER ANTELOPE (HI VISTA	LNCSCAXF	58	1.36	0.50	63.2%	68.4%	4.9	4.3	2152	1839	19	19	7	1	18	6	1
LANCASTER/QUARTZ HILL	LNCSCAXG/	10345	0.63	0.35	45.3%	69.2%	6.7	4.9	3770	2672	1573	1566	860	210	1243	485	91
LAYTONVILLE	LYVLCAXF	690	1.70	1.25	26.6%	55.0%	14.1	11.5	7839	6196	282	279	207	78	204	127	41
LEE VINING	LVNGCAXF	133	0.78	0.53	32.0%	56.0%	13.3	13.6	6617	6108	25	25	17	8	19	11	5
LEGGETT	LGGTCAXF	65	2.62	1.92	26.8%	48.8%	15.9	5.4	8054	4961	41	41	30	14	32	21	6
LEMON COVE	LMCVCAXF	84	0.99	0.69	30.0%	60.0%	7.0	4.0	4724	3008	20	20	14	4	14	8	1
LENWOOD	LNWDCAXF	370	1.40	0.77	45.2%	65.3%	6.4	4.3	3789	2438	124	124	68	14	99	43	7
LINDEN	LNDNCAXF	598	1.16	0.68	41.3%	67.7%	3.5	2.2	2338	1583	167	167	98	1	131	54	0
LINDSAY/STRATHMORE	LNDSCAXF/:	1681	1.53	0.77	49.5%	66.9%	4.6	3.3	2984	2196	616	613	311	46	514	204	19
LOMPOC/VANDENBERG AFB	LMPCCAXF/	3940	0.60	0.38	35.7%	57.2%	9.0	7.2	5597	4598	563	561	362	90	451	241	56
LONE PINE	LNPNCAXF	464	1.01	0.74	27.4%	55.8%	9.6	5.3	5153	3007	113	113	82	18	82	50	7
LONG BEACH	LNBHCAXF/I	17831	0.55	0.27	50.9%	73.5%	5.6	4.1	3100	2122	2334	2310	1146	210	1864	619	102
LONG BEACH STADIUM (LAKEWO	LNBHCAXS	4718	0.54	0.27	50.1%	66.9%	6.1	4.7	3466	2586	613	611	306	87	524	203	47
LOS ALAMOS	LSALCAXF	422	0.51	0.34	34.6%	48.1%	5.9	4.5	4376	3508	52	52	34	12	46	27	8
LOS ANGELES (MARS VISTA)	CLCYCAXG	5245	0.71	0.37	48.0%	70.8%	4.4	3.5	2740	1996	890	887	463	48	724	260	21
LOS GATOS	LSGTCAXA/I	6283	1.05	0.75	28.6%	57.5%	7.8	5.6	5796	4145	1580	1572	1128	411	1152	671	157
LOST HILLS	LSHLCAXF	228	1.10	0.84	23.3%	53.3%	5.9	4.5	3877	3005	60	60	46	5	44	28	0
LUCERNE VALLEY	LCVYCAXF	500	2.24	1.47	34.6%	56.9%	6.2	4.8	3881	2784	269	267	176	39	210	116	15
MAD RIVER	MDRVCAXF	175	2.04	1.88	8.1%	37.2%	13.6	11.6	9923	8381	86	86	79	38	61	54	21
MALIBU	MALBCAXG/	4397	0.47	0.33	28.8%	63.3%	18.1	9.8	10893	6820	493	487	351	134	323	181	52

Table 4F.6 (continued)

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
MAMMOTH LAKES	MMLKCAXF	1934	0.47	0.30	35.9%	59.0%	8.0	4.6	5356	3576	217	215	139	31	171	89	14
MANTECA/LATHROP	MNTCCAXG	5345	0.67	0.36	45.9%	66.1%	4.9	3.6	3078	2148	858	855	464	67	706	291	26
MARSHALL/MUSCOY	SNBRCAXH/	4657	1.07	0.72	33.1%	55.4%	5.7	4.1	4060	2999	1196	1194	800	137	962	533	50
MCFARLAND	MCFACAXF	634	1.39	0.68	51.4%	75.0%	3.5	2.0	2191	1490	212	209	103	8	164	53	2
MCKITTRICK	MCKTCAXF	153	1.47	0.98	33.3%	53.7%	9.9	5.9	4915	3674	54	54	36	12	43	25	6
MENTONE	MENTCAXF	1898	0.80	0.59	26.5%	62.0%	8.5	5.5	5377	3497	366	366	269	65	256	139	24
MIRANTPHST	MRMNCASF	77	5.13	4.26	16.8%	41.1%	13.5	12.8	9207	7551	95	95	79	41	74	56	27
MONROVIA	MNRVCAXG	6715	0.83	0.43	48.1%	70.3%	4.3	2.9	2693	1880	1336	1328	693	73	1076	397	19
MORENO/EDGEMONT/SUNNYMEA	LNCSCAXF/I	7832	0.34	0.17	51.2%	69.6%	4.6	3.2	3103	2270	644	639	314	51	530	196	20
MORGAN HILL	MRHLCAXF	4904	0.62	0.43	31.3%	54.8%	7.4	5.3	5253	3530	732	732	503	154	577	331	69
MORONGO VALLEY	MRVYCAXF	332	2.41	1.62	32.8%	57.3%	9.9	8.3	6810	5299	192	191	129	67	150	82	35
MURRIETA	MURTCAXF	7128	0.29	0.15	47.8%	69.4%	4.2	3.4	3029	2365	500	497	261	31	398	153	8
NEWBERRY SPRINGS	NWBRCAXF	178	3.42	2.15	37.0%	62.3%	7.8	5.9	4589	3802	146	146	92	26	113	55	16
NEWBURY PARK	NWPKCAXF	5539	0.18	0.11	38.7%	62.1%	7.9	5.1	7056	5816	243	240	149	51	186	92	21
NORWALK/NORWALK ALONDRA/A	NRWLCAXF/	18040	0.56	0.28	50.1%	70.3%	5.5	4.2	3230	2297	2434	2419	1215	278	1992	723	130
NOVATO	NOVTCAXF	3335	0.63	0.44	30.9%	51.6%	7.1	5.0	4579	3276	508	507	351	80	411	246	36
OLANCHA (OJAI)	OLNCCAXF	89	0.89	0.80	10.5%	63.2%	13.6	12.5	7690	9729	19	19	17	6	9	7	2
ONTARIO/ONTARIO SOUTH/ONTA	ONTRCAX/C	12929	0.36	0.19	45.5%	67.5%	3.7	2.7	2722	1978	1103	1099	601	53	875	359	14
ORLEANS	ORLNCAXF	170	0.83	0.64	23.5%	50.0%	4.9	4.1	3872	3253	34	34	26	3	26	17	0
OXNARD/OXNARD W WOOLEY	OXNRCAXF/	6952	0.44	0.25	41.9%	64.4%	6.0	4.7	3801	3035	730	727	424	90	581	260	52
PACIFIC PALISADES	PCPLCAXF	6250	0.75	0.40	45.8%	72.9%	5.1	3.2	3095	2068	1119	1114	606	92	859	303	31
PACOIMA	PACMCAXF	3725	0.57	0.32	43.9%	66.4%	6.3	5.1	3997	2993	506	505	284	70	402	170	36
PALM DESERT/THOUSAND PALMS	PLDSCAXF/T	11789	0.99	0.57	42.6%	67.3%	4.6	3.4	3678	2781	2804	2797	1610	230	2199	916	106
PALM SPRINGS/RANCHO MIRAGE	PLSPCAXG/	10122	1.29	0.75	41.8%	66.8%	5.1	3.6	4305	3316	3143	3139	1829	313	2432	1043	129
PARKFIELD	PRFDCAXF	22	0.96	0.58	40.0%	100.0%	1.8	0.8	1380	676	5	5	3	0	5	0	0
PERRIS	PERSCAXF	3025	0.81	0.45	44.4%	68.7%	5.0	3.4	3536	2548	588	586	327	55	448	184	20
PERRIS(LAKEVIEWNU)	PERSCAXF	1267	1.53	0.85	44.8%	70.4%	4.9	3.2	3571	2719	466	463	257	46	361	138	15
PHELAN	PHLNCAXF	1832	0.97	0.56	42.5%	66.7%	6.0	4.2	3885	2774	426	426	245	58	327	142	23
PICO RIVERA	PCRVCAXF	7411	0.79	0.45	42.5%	67.4%	5.5	4.0	3520	2446	1406	1401	809	173	1087	459	65
PIERCY	PIRCCAXF	52	1.69	1.05	38.1%	52.4%	7.3	3.9	5587	3382	21	21	13	8	18	10	0
PINE CREEK	PNCKCAXF	127	0.86	0.53	38.5%	61.5%	6.0	4.1	3662	2207	26	25	16	3	21	10	0
PINYON	PNYNCAXF	145	1.99	1.27	36.2%	59.4%	5.3	4.8	3587	2864	69	69	44	6	53	28	2
PLAYA DEL REY	PDRYCAXF	6562	0.78	0.41	47.2%	69.0%	5.4	4.4	3220	2312	1232	1226	651	103	996	382	61
POINT MUGU	MUGUCAXF	1814	0.71	0.44	38.1%	61.2%	6.1	4.9	4243	3517	307	307	190	47	248	119	29
POMONA	POMNCAXF	5820	0.53	0.27	48.8%	70.1%	3.6	2.1	2444	1794	742	740	380	20	596	222	7
RANDSBURG	RNBGCAXF	42	0.69	0.59	14.3%	71.4%	8.0	3.6	6298	2958	7	7	6	2	4	2	0
REDLANDS/LOMA LINDA	RDLDCAXF/	9001	0.50	0.29	42.4%	63.8%	5.2	4.2	3431	2713	1076	1065	620	96	846	390	48
REDONDO BEACH	RDBHCAXF	1031	0.32	0.17	47.5%	77.5%	3.0	2.0	2212	1524	80	80	42	0	58	18	0
REEDLEY	RDLYCAXF	2116	1.31	0.76	42.4%	61.5%	4.9	3.8	3365	2620	667	665	384	64	558	257	29
RIDGECREST	RDGCCAXG	3589	1.20	0.75	37.9%	58.7%	8.9	6.7	4798	3509	1035	1033	643	165	833	427	90
RIPON	RIPNCAXF	1686	0.82	0.45	44.5%	65.8%	5.4	4.1	3297	2310	330	328	183	34	264	113	16
ROBBINS	RBNSCAXG	74	1.46	1.24	15.4%	53.8%	5.6	2.6	3892	2168	26	26	22	2	16	12	0
RUNNING SPRINGS	RNSPCAXF	587	1.23	0.61	50.3%	74.0%	5.5	2.7	3085	1940	173	173	86	15	140	45	5
SALTON CITY	SLCYCAXF	142	6.97	4.83	30.7%	54.2%	5.0	4.4	3958	3278	238	237	165	23	190	109	11
SAN BERNARDINO/SAN BERARDI	SNBRCAXK/	7512	1.03	0.65	36.6%	61.7%	5.4	4.1	3496	2637	1851	1844	1173	170	1424	709	73
SAN FERNANDO (SNFN SNFN)	SNFNCAXG	3521	0.63	0.38	39.7%	63.5%	6.0	4.5	3808	2833	532	532	321	75	425	194	27
SAN JACINTO	SNJCCAXG	1874	0.75	0.41	45.4%	70.9%	5.0	3.1	3766	2378	337	335	184	33	256	98	10
SAN JOAQUIN/TRANQUILLITY	SNJQCAXF/T	431	1.26	0.89	29.2%	46.2%	5.9	4.5	3888	2986	130	130	92	14	108	70	6
SAN MIGUEL	SNMGCAXF	496	0.54	0.29	46.9%	68.8%	5.4	5.0	5482	4375	64	61	34	5	47	20	3
SANGER	SNGRCAXF	2005	1.47	0.99	32.8%	56.2%	6.1	4.8	4592	3577	705	703	474	126	545	309	52
SANTA BARBARA/GOLETO/MONTE	SNBBCAXF/	17859	0.91	0.58	35.8%	59.1%	7.0	5.5	4682	3440	3897	3875	2503	543	3089	1593	232
SANTA MARIA/ORCUTT	SNTMCAXF	9508	0.35	0.22	38.8%	57.0%	6.5	5.3	6672	5874	810	807	496	110	678	348	65
SANTA MONICA/SANTA MONICA O	SNMNCAXG	19895	0.60	0.30	49.6%	66.1%	4.4	3.1	2596	1965	2885	2874	1454	147	2474	979	72
SANTA PAULA	SNPLCAXF	2236	1.21	0.89	26.9%	55.1%	21.9	17.3	9409	6793	650	650	475	169	474	292	99
SEA RANCH	SERNCAXG	557	1.14	0.70	39.2%	66.0%	7.3	5.4	5418	3329	153	153	93	26	116	52	11

Table 4F.6 (continued)

Wire Center Name	CLLI	Access Lines (avg for Quarter)	OOS per 100 ALs per month	OOS>24 per 100 ALs per month	Pct Cleared w/in 24 hours (unadj)	Pct Cleared w/in 24 hours (adj)	# days to clear 90% OOS (unadj)	# days to clear 90% OOS (adj)	Avg OOS Duration (mins)	Avg CPUC OOS Duration (mins)	OOS Total	OOS > 1 hour	OOS > 24 Hours	OOS > 1 week	CPUC OOS > 1 hour	CPUC OOS > 24 hours	CPUC OOS > 1 Week
SEAL BEACH (ALAMITOS)	SLBHCAXF	13392	0.53	0.27	49.4%	72.5%	4.5	2.9	2717	1892	1699	1690	860	107	1390	468	38
SEPULVEDA	SPLVCAXF	5210	0.60	0.35	42.3%	61.5%	6.4	5.1	3700	2871	750	749	433	95	622	289	53
SIERRA MADRE/PASADENA	SRMDCAXF,	2874	0.83	0.47	43.6%	67.2%	5.1	3.7	3124	2210	574	574	324	45	463	188	14
SNELLING	SNNGCAXG	130	3.02	2.41	20.2%	50.0%	6.2	4.4	4769	3301	94	94	75	18	67	47	1
SOLVANG (SANTA YNEZ)	SLVNCAXG	4073	0.89	0.69	22.6%	47.4%	9.8	8.8	6115	5064	871	868	674	172	663	458	90
SQUAW VALLEY	SVYFCAXF	133	3.21	2.20	31.4%	46.1%	10.4	8.7	6116	5029	102	102	70	25	90	55	15
SUMMIT VLY	SMVYCAXF	52	2.64	1.68	36.4%	66.7%	6.1	5.9	3180	2502	33	33	21	2	24	11	1
SUN CITY/QUAIL VALLEY	SNCYCAXF/	4552	0.55	0.29	47.7%	68.9%	3.6	2.6	2891	2094	598	594	313	26	482	186	7
SUNLD TJNG	SNLDCAXF	3073	0.77	0.51	33.3%	60.0%	7.1	5.5	4370	3353	568	568	379	88	441	227	48
SYLMAR	SYLMCAXF	3137	0.58	0.33	43.6%	67.7%	6.3	4.8	3971	2903	440	439	248	60	347	142	31
TAFT/FELLOWS/MARICOPA	TAFTCAXF/I	1117	0.82	0.45	45.7%	64.3%	4.9	3.4	3116	2309	221	219	120	17	178	79	8
TEMECULA/RANCHO CALIFORNIA	TMCLCAXG/	10239	0.46	0.26	44.6%	67.8%	4.0	2.7	3008	1995	1138	1135	630	69	906	366	12
THOUSAND OAKS	THOKCAXF	8683	0.30	0.17	43.7%	64.1%	6.7	5.1	4434	3322	616	611	347	100	495	221	52
THOUSAND OAKS(CONEJO)	THOKCAXH	1712	0.31	0.18	43.3%	68.5%	6.8	5.4	4012	2854	127	126	72	15	99	40	8
TIMBER COVE	TMCVCAXH	412	1.38	1.02	25.7%	50.0%	10.1	6.7	6494	4724	136	136	101	36	104	68	17
TIVY VALLEY	TVYCAXF	469	3.45	1.98	42.5%	64.4%	5.7	4.3	4006	2981	388	384	223	67	308	138	30
TOPANGA	TPNGCAXF	610	0.81	0.72	10.2%	56.8%	24.5	12.7	12979	7689	118	118	106	51	66	51	18
TRONA	TRONCAXF	440	1.49	1.21	18.5%	44.6%	9.0	5.8	5242	3884	157	157	128	27	121	87	11
TWENTYNINE PALMS/MARINE BAS	TWPLCAXF/	1069	1.58	1.01	36.0%	56.2%	6.6	5.3	4464	3262	406	404	260	76	329	178	30
UPLAND	UPLDCAXF	22127	0.49	0.25	48.6%	70.2%	3.9	2.6	2743	2011	2577	2561	1325	130	2057	768	35
VICTORVILLE/HELENDALE-SILVER	VTVLCAXA/I	7126	0.48	0.28	42.5%	65.2%	5.8	4.5	3846	2893	819	818	471	107	654	285	56
VTVL HSPR (GLENDORA)	HSPRCAXF	4	1.09	1.09	0.0%	0.0%	11.2	10.2	16080	14640	1	1	1	1	1	1	1
WALNUT	WLNTCAXF	5	0.80	0.80	0.0%	0.0%	4.1	3.1	5929	4489	1	1	1	0	1	1	0
WEAVERVILLE	WVVLCAXG	1602	0.65	0.35	46.4%	72.4%	4.9	3.2	2891	1893	250	248	134	18	194	69	3
WEIMAR	WEMRCAXF	367	1.10	0.77	29.9%	54.6%	3.9	2.5	2813	1963	97	97	68	3	75	44	0
WELDON	WLDNCAXF	455	1.81	1.21	33.3%	57.6%	7.5	6.0	4567	3259	198	197	132	30	156	84	16
WEST LOS ANGELES/WEST LOS A	WLANCAXF/	26947	0.55	0.29	47.1%	70.0%	5.5	4.0	3170	2139	3544	3527	1876	395	2823	1063	146
WESTMINSTER	WMNSCAXF	10879	0.71	0.40	43.9%	65.3%	6.3	4.7	4149	2976	1862	1854	1045	279	1501	646	120
WHITEHORN	WHTNCAXF	552	1.61	1.10	31.5%	48.4%	8.8	5.2	5491	3926	213	208	146	37	177	110	17
WHITTIER/WHITTIER TELEGRAPH	WHTRCAXF,	10762	0.47	0.26	45.6%	67.8%	5.1	4.0	3102	2329	1219	1211	663	110	969	393	48
WILLOW CRK	WWCKCAXF	804	1.16	0.98	15.2%	49.8%	8.0	6.4	5767	4230	223	223	189	50	153	112	16
WRIGHTWOOD	WRWDCAXF	795	0.89	0.60	32.0%	63.9%	6.5	5.2	4595	3609	169	169	115	25	124	61	14
YUCCA VALLEY	YCVYCAXG	1845	0.97	0.63	35.3%	63.1%	8.0	5.8	5349	3841	431	431	279	106	325	159	43

Frontier Service Quality Performance

In this section, we present the companywide results in a form comparable to that provided above for AT&T. Appendix 4F-1 provides a compilation of individual wire center and reporting unit statistics covering the Frontier ownership period and includes, for each wire center (or reporting unit under Frontier), data and trend line calculations for several performance metrics relating to OOS conditions cleared within varying lengths of time.

Effect of persistent access line losses on the volume of customer trouble reports

As noted above, over the April 2016 to December 2019 study period, Frontier California experienced a net loss of 628,243 of its POTS access lines, going from 1,201,218 ss of April 1, 2016 to only 572,975 as of December 2019, a 52.3% drop-off. Notably, the calculated long-term trend in total out-of-service incidents decreased by only 28.5%, from 17,824 in the second quarter of 2016 to 12,752 in the fourth quarter of 2019. Thus, while POTS lines in service saw a 52.3% decrease over the period, out-of-service incidents decreased by about 28.5% (see Figure 4F.2). Over the period of Frontier ownership, the relative drop-off in legacy POTS access lines greatly exceeded the relative decrease in total out-of-service incidents. Out-of-service incidents per 100 access lines in service thus *increased* over the period under Frontier management. The relationship between these two downward trends is also demonstrated in Figure 4F.2, which plots both the drop-off in access lines and in out-of-service incidents. Figure 4F.3 plots the number of out-of-service incidents per 100 POTS lines in service, and shows this metric steadily increasing from a predicted level of 0.50 in the second quarter of 2016 to 0.75 in the fourth quarter of 2019, a 50% increase. Over the 2018-2019 Phase 2 study period, this metric increased from a predicted value as of the beginning of 2018 of .055 to 0.77 as of the end of 2019, an increase of 41.8% in just the past two years.

Over the period of Frontier ownership, the relative drop-off in legacy POTS access lines greatly exceeded the relative decrease in total out-of-service incidents; thus, under Frontier ownership, out-of-service incidents per 100 access lines in service increased.

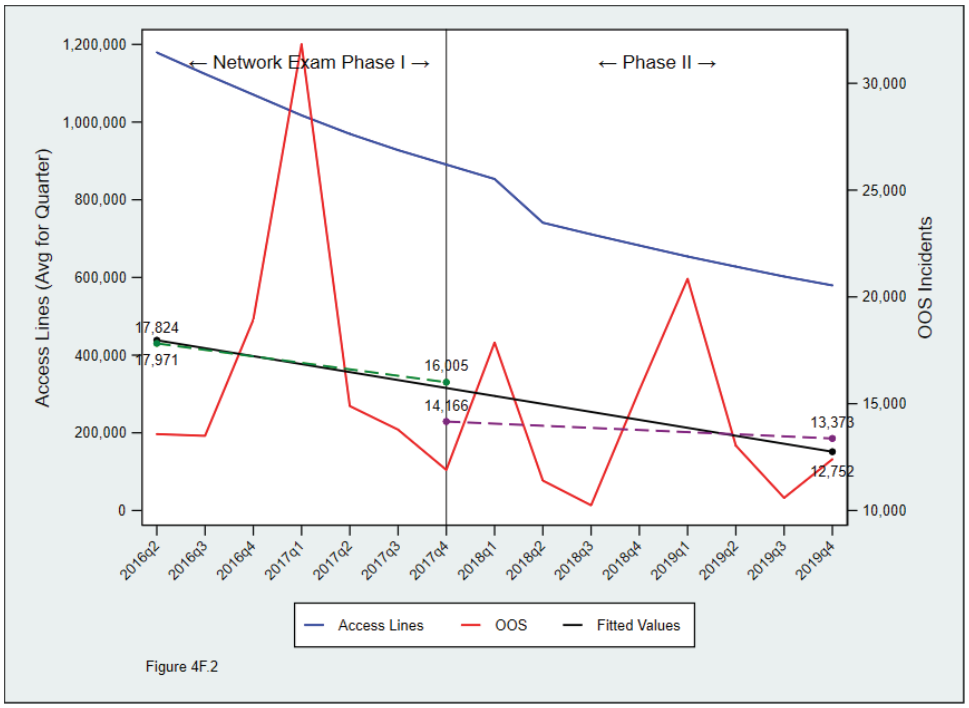

Figure 4F.2. The number of Out-Of-Service incidents has fallen by a smaller percentage than the drop-off in POTS access lines over the 2016-2019 period of Frontier ownership.

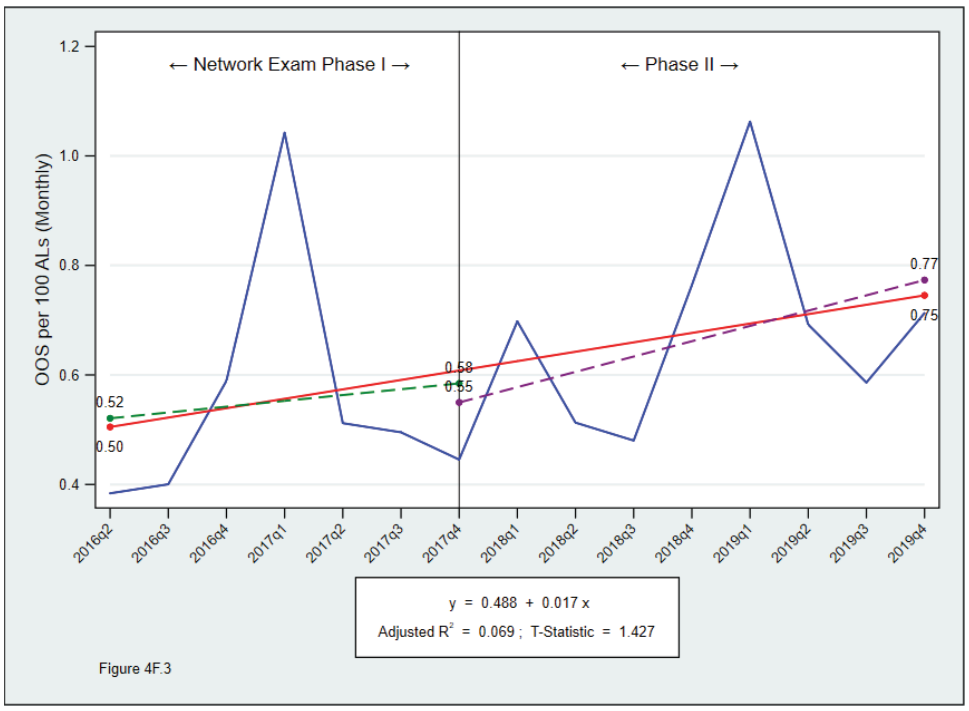

Figure 4F.3. There has been a steady upward trend in the number of out-of-service incidents per 100 access lines in service under Frontier ownership, and a further increase over the 2018-2019 Phase 2 study period.

Out-of-service conditions

Not only has Frontier seen a significant upward trend over the 45-month Phase 1/2 study period in the total number of out-of-service incidents per 100 access lines, the number of out-of-service incidents extending for more than 24 hours per 100 access lines, which had been falling over the first seven quarters of Frontier ownership, has reversed course and is rising over the 2018-2019 Phase 2 period, as shown in Figure 4F.4.

Duration of out-of-service conditions

A principal focus of the Commission's concerns regarding ILEC service quality is with respect to the frequency and duration of out-of-service conditions. GO 133-C/D has placed particular emphasis upon protracted out-of-service situations, focusing specifically upon POTS lines that are not restored within the first 24 hours.

Gains that had been achieved by Frontier in reducing the actual durations of reported OOS conditions occurring in the immediate post-acquisition period were reversed, with outages becoming progressively longer in overall duration after 2017. Figure 4F.5 plots the average duration of all out-of-service conditions. The immediate post-acquisition improvement also reversed course after the beginning of 2018. As shown in Figure 4F.6, a similar pattern can be seen for the average duration of all out-of-service conditions in excess of one hour – this metric eliminates those incidents than can typically be easily resolved through telephonic interaction with the customer, such as advising the customer to make sure that the handset is plugged in or that the battery in a cordless phone has not run down. Even the most problematic out-of-service situations – those extending beyond 24 hours – which had held roughly constant over the 2016-2017 period, showed a marked increase in average duration for 2018-2019 (Figure 4F.7). Figures 4F.8 and 4F.9 present these same metrics on an adjusted basis (i.e., excluding Sunday and holiday hours and OOS conditions beyond management's control), both of which follow similar patterns to those for actual durations.

Improvements in service quality that were accomplished during the first seven quarters following Frontier's takeover were reversed in 2018-2019, which saw increases in the numbers of service outages lasting more than 24 hours and in the average duration of all service outages.

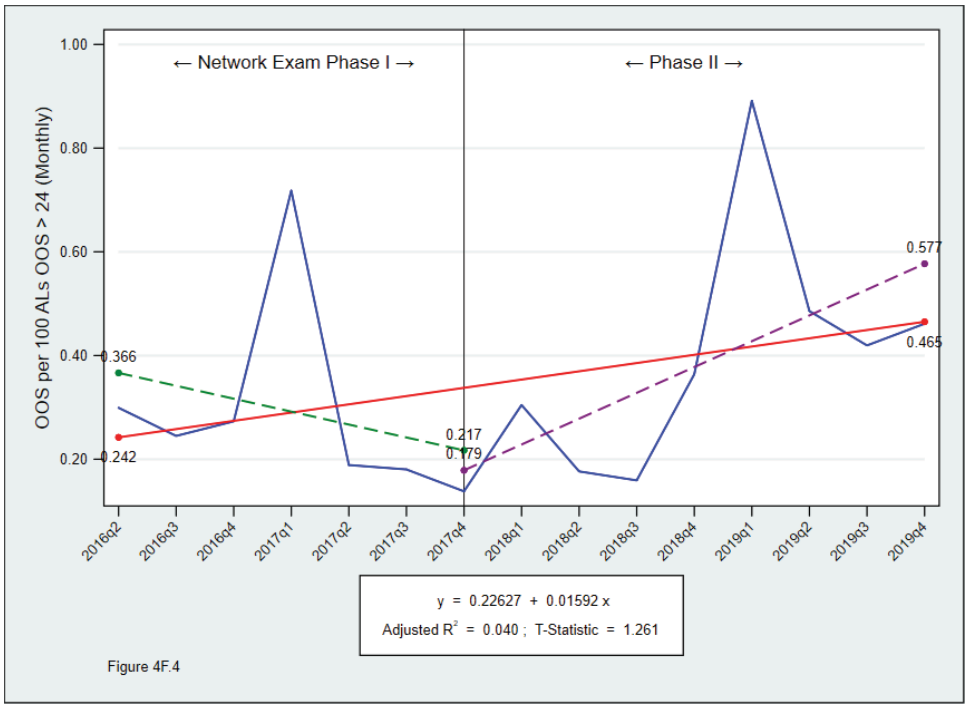

Figure 4F.4. The number of out-of-service incidents exceeding 24 hours per 100 access lines was initially decreasing under Frontier ownership, but has now been on the rise over the 2018-2019 period.

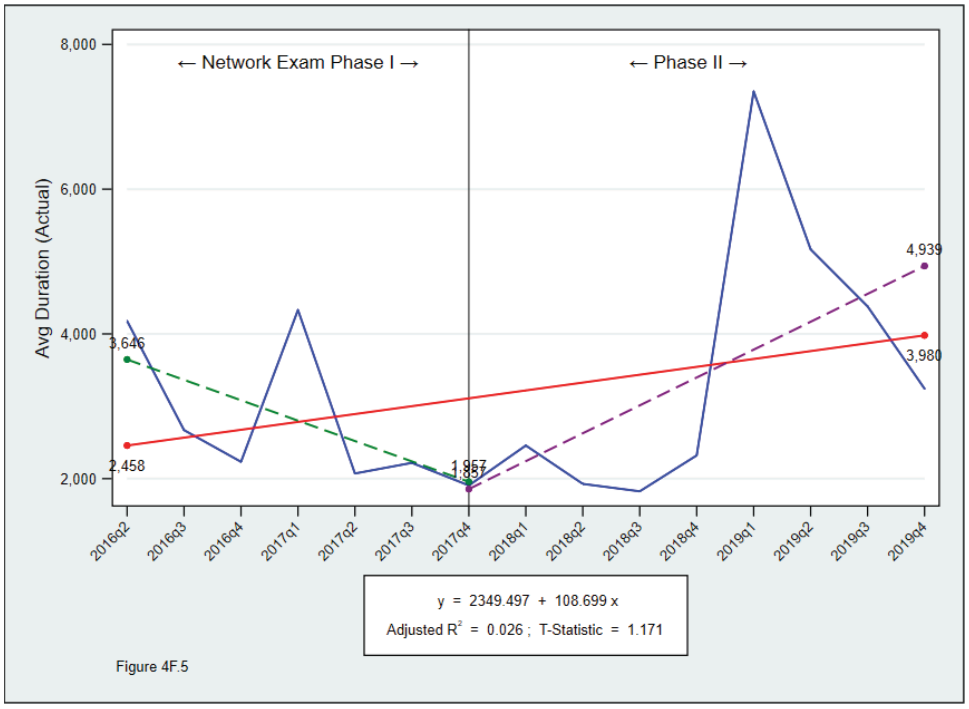

Figure 4F.5. The average duration (actual) of all out-of-service conditions had been improving during the first two years of Frontier ownership, but that trend has sharply increased over the 2018-2019 period.

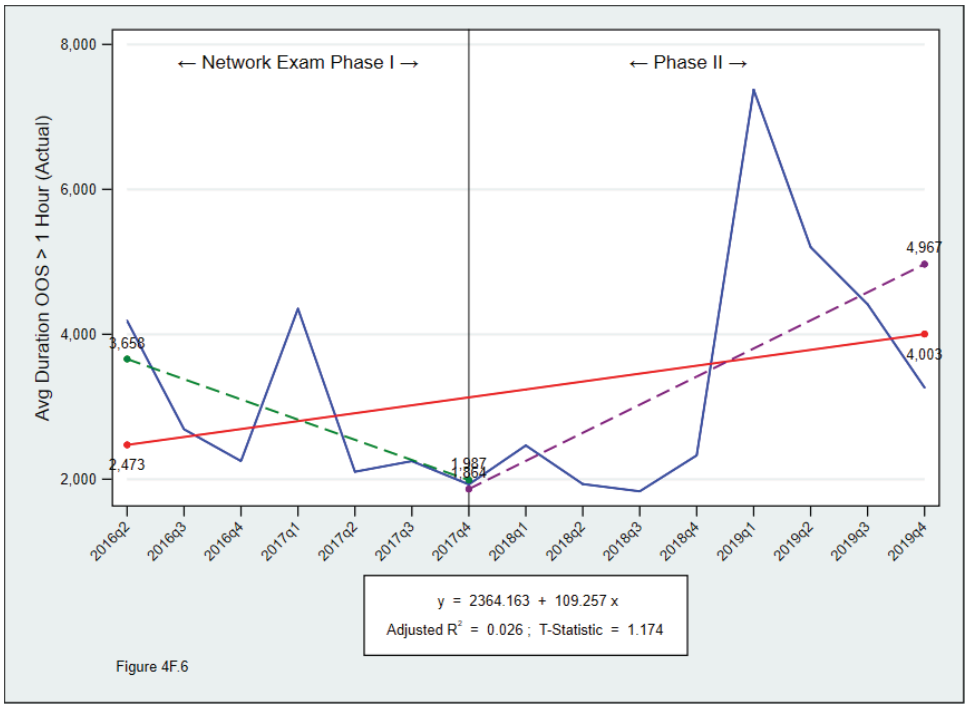

Figure 4F.6. The average duration (actual) of out-of-service conditions greater than one hour had been improving during the first two years of Frontier ownership, but that trend has sharply increased over the 2018-2019 period.

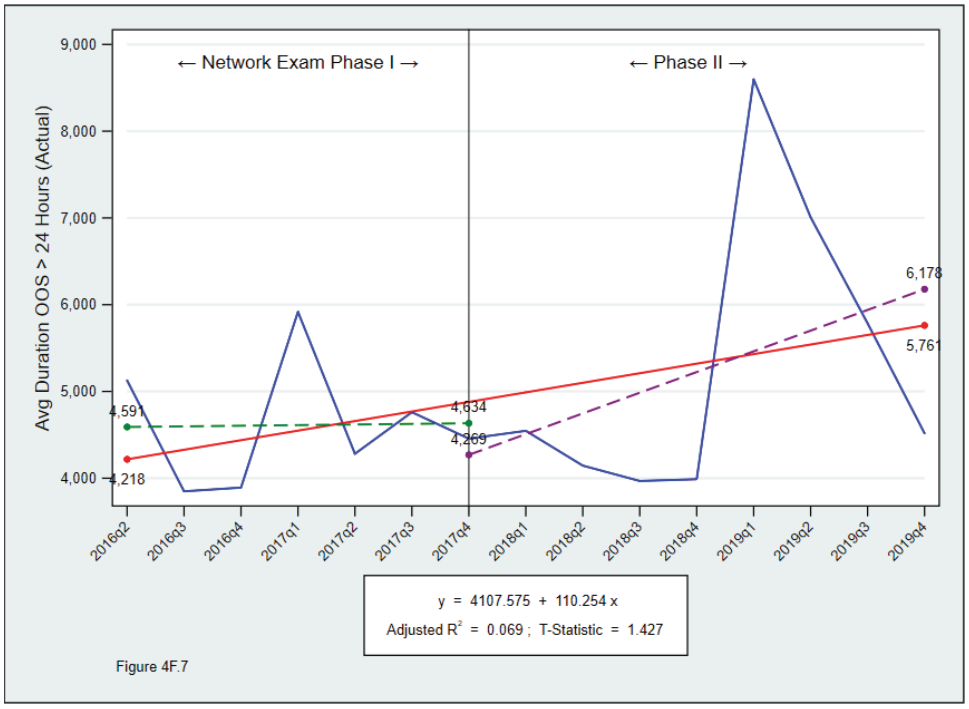

Figure 4F.7. Average actual (actual) duration of all out-of-service incidents in excess of 24 hours in duration has been trending upward over the 2018-2019 period.

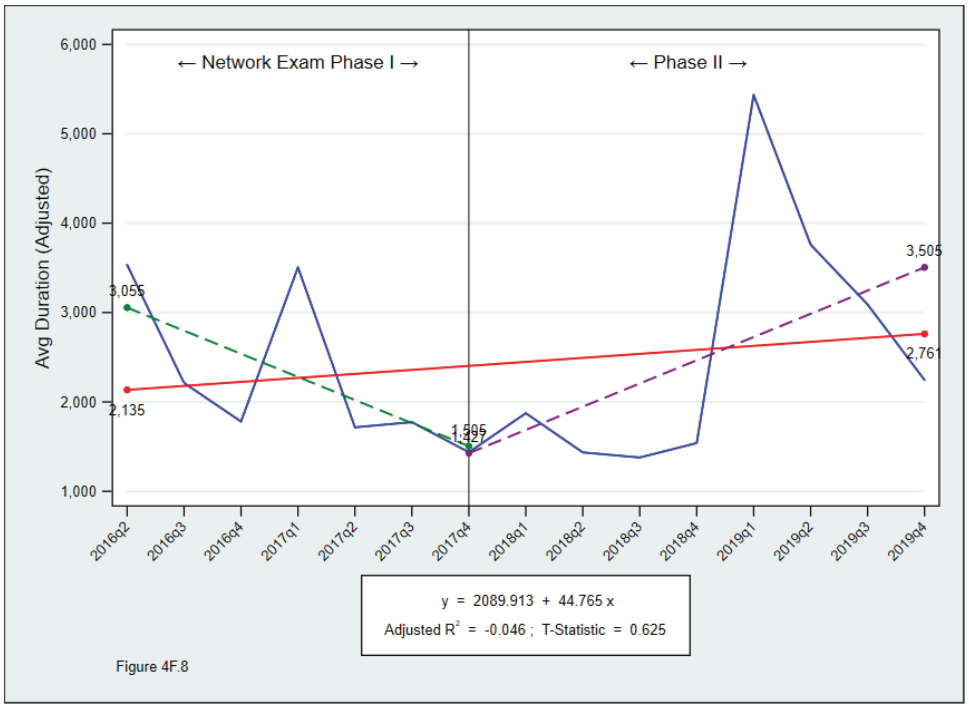

Figure 4F.8. Average duration of all out-of-service incidents adjusted for Sundays and holidays had been improving during the first two years of Frontier ownership, but that trend has sharply increased over the 2018-2019 period.

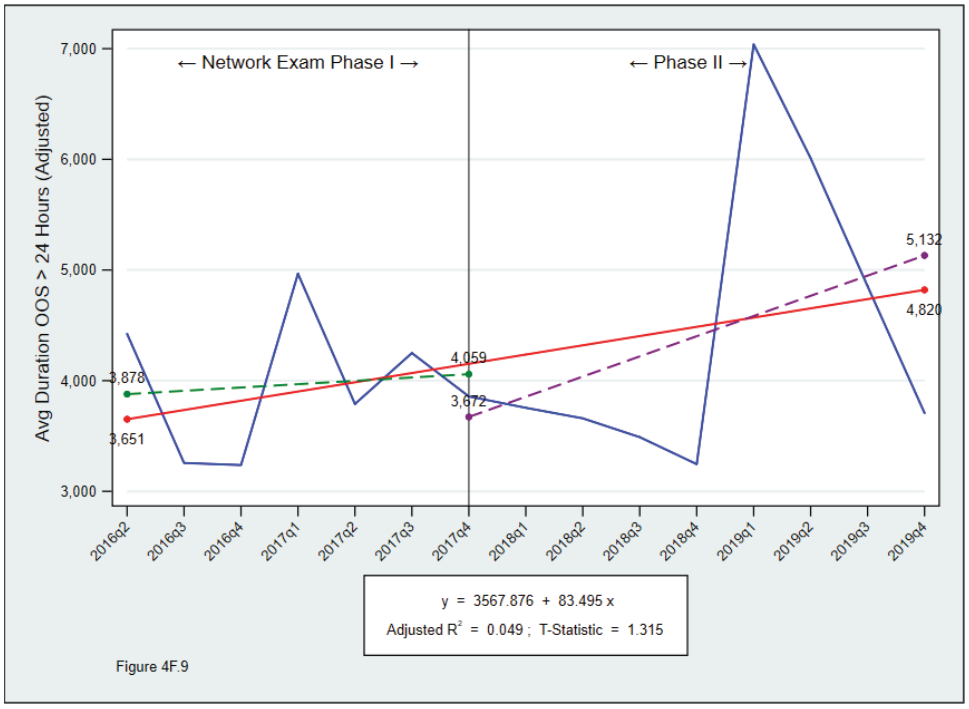

Figure 4F.9. Average duration of all out-of-service incidents in excess of 24 hours adjusted for Sundays and holidays has been trending upward over the 2018-2019 period.

Out-of-service conditions cleared within 24 hours

GO 133-C/D §3.4(c)'s "Minimum Standard Reporting Level" requires that "90% of all out of service trouble reports [be cleared] within 24 hours [as] the set minimum standard." As Table 4F.7 demonstrates, over the 45-month period under Frontier management, Frontier California has never come even remotely close to meeting this 90% requirement. Figures 4F.10 and 4F.11 plot these percentages and trends graphically for actual and adjusted OOS durations, respectively. There were improvements immediately following the Frontier acquisition, but these gains were not sustained in 2018-2019.

Table 4F.7

FRONTIER CALIFORNIA

PERCENTAGES OF ACTUAL AND ADJUSTED ("CPUC") OUT-OF-SERVICE CONDITIONS CLEARED WITHIN 24 HOURS AND DAYS REQUIRED TO CLEAR 90%

	Actual		Adjusted	
	Pct. Cleared within 24 hours	Days Required to Clear 90%	Pct. Cleared within 24 hours	Days Required to Clear 90%
2Q2016	22.0%	5.70	28.0%	4.72
3Q2016	38.8%	3.95	44.5%	3.01
4Q2016	53.7%	3.75	60.6%	2.77
1Q2017	31.1%	6.23	36.8%	5.08
2Q2017	63.1%	3.04	70.0%	2.14
3Q2017	63.6%	3.06	72.2%	2.15
4Q2017	69.0%	2.69	78.6%	1.77
1Q2018	56.3%	3.27	66.3%	2.30
2Q2018	65.6%	2.85	79.3%	1.78
3Q2018	66.8%	2.80	79.3%	1.74
4Q2018	52.4%	3.44	75.1%	2.06
1Q2019	16.1%	10.70	48.6%	8.17
2Q2019	29.8%	7.65	59.3%	5.39
3Q2019	28.4%	6.07	61.5%	4.68
4Q2019	35.3%	4.99	63.3%	3.11

Frontier's ability to clear OOS conditions quickly – i.e., over time, a successively smaller percentage of OOS conditions were being cleared within 24 hours – varied. On an actual basis (Figure 4F.10), Frontier had seen improvements in clearing OOS conditions within 24 hours over the April 2016 to December 2017 period, but that percentage decreased over the 2018-2019 period.. The same pattern existed when examined on an adjusted basis (Figure 4F-11). Taken over the entire 45 months under Frontier management, the percent of outages cleared within 24

hours decreased with respect to actual durations, but improved slightly with repsect to adjusted durations, even though both metrics saw declines over the 2018-2019

57.85% of the roughly 112,022 out-of-service conditions (34.84% on an "adjusted" basis) remained uncleared after 24 hours by Frontier during the 2018-2019 Phase 2 period. For the 118,402 out-of-service conditions during the 4/2016-12/2017 Phase 1 period, 53.83% (47.01% on an adjusted basis) remained uncleared after 24 hours. To satisfy the GO 133-C/D §3.4(c) requirement, these percentages would need to drop to less than 10%.

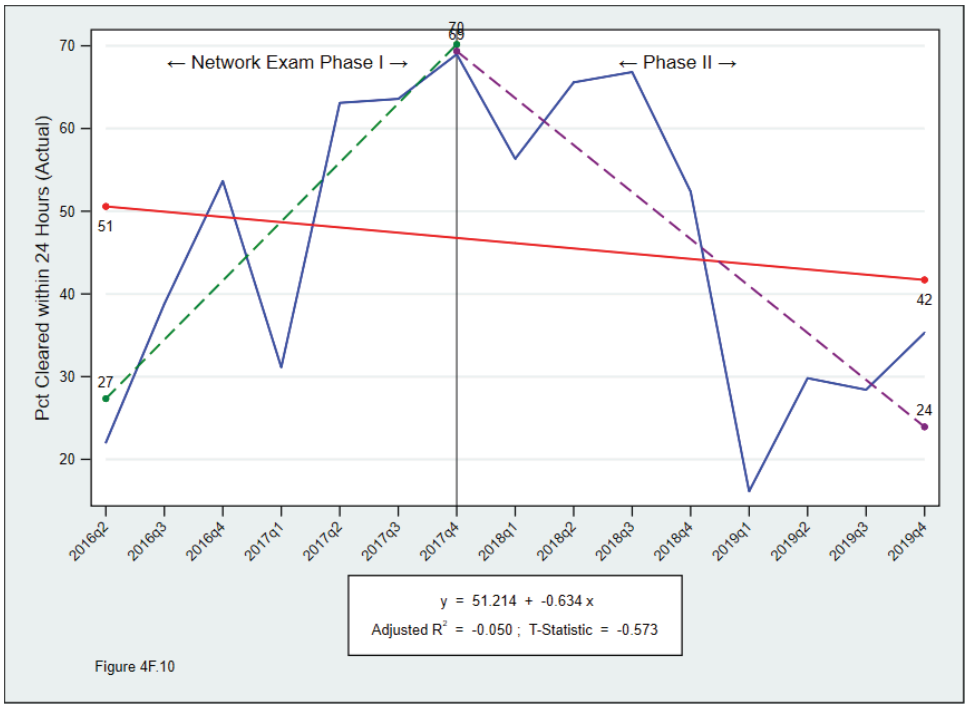

Figure 4F.10. Percentage of all out-of-service conditions cleared within the first 24 hours (actual) had been improving during the first two years of Frontier ownership, but that trend has sharply decreased over the 2018-2019 period.

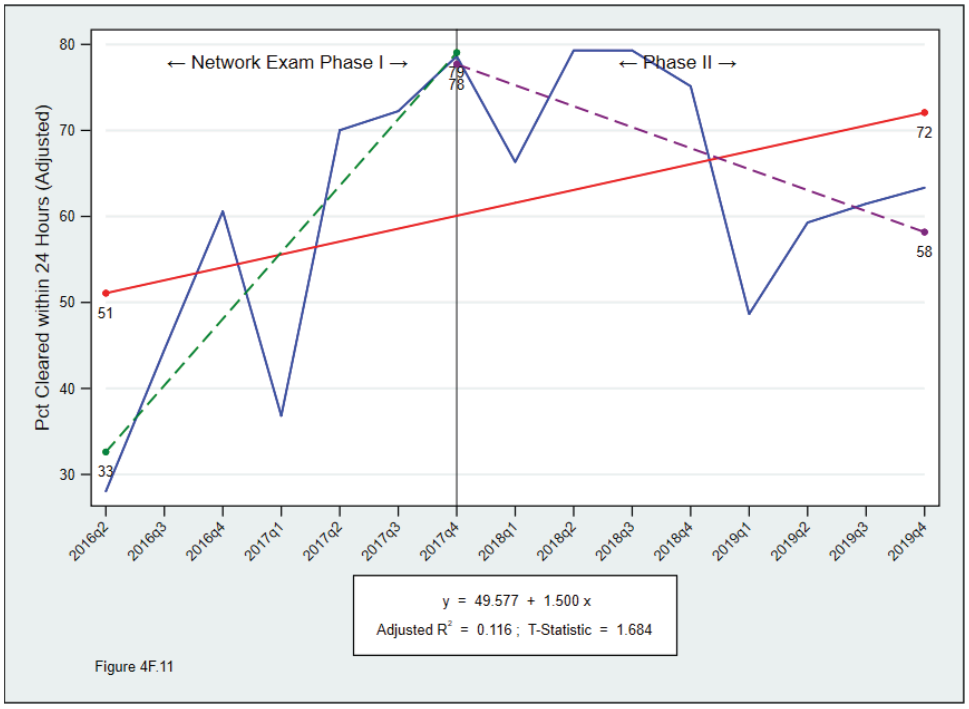

Figure 4F.11. Percentage of all out-of-service conditions cleared within the first 24 hours (adjusted for Sundays and holidays) had been improving during the first two years of Frontier ownership, but that trend has sharply decreased over the 2018-2019 period.

As with AT&T, ETI's other approach to examining this "90% cleared within 24 hours" requirement is to calculate the average length of time it took for Verizon or Frontier to reach the 90% cleared threshold. These results are also summarized on Table 4F.7 above, and are plotted on Figures 4F.12 (actual) and 4F.13 (adjusted) below. Both metrics saw improvement over the April 2016 to December 2017 period but, as with the other out-of-service metric we examined, these gains did not persist into 2018-2019.

As we noted in our Phase 1 Report (Chapter 2), there were only two months over the entire Phase 1 2010-2017 study period where Verizon California or Frontier California had succeeded in meeting the GO 133-C/D §3.4(c) "90% cleared within 24 hours" requirement. This was in February and March 2016, the final two months under Verizon ownership. In D.15-12-005, the decision approving the transfer of the company from Verizon to Frontier, the Commission had imposed such pre-transaction compliance as a condition for approval of the transfer.[33] Verizon did, in fact, meet the "90% cleared within 24 hours" requirement in the two months immediately preceding the transfer, but once Frontier took over the company it has been unable to come even close to satisfying this condition at any point under its ownership. In fact, under Frontier ownership, the number of days required for Frontier California to meet the 90% objective has increased.

33. D.15-12-005, *Decision Granting Application Subject to Conditions and Approving Related Settlements*, December 9, 2015, at 67.

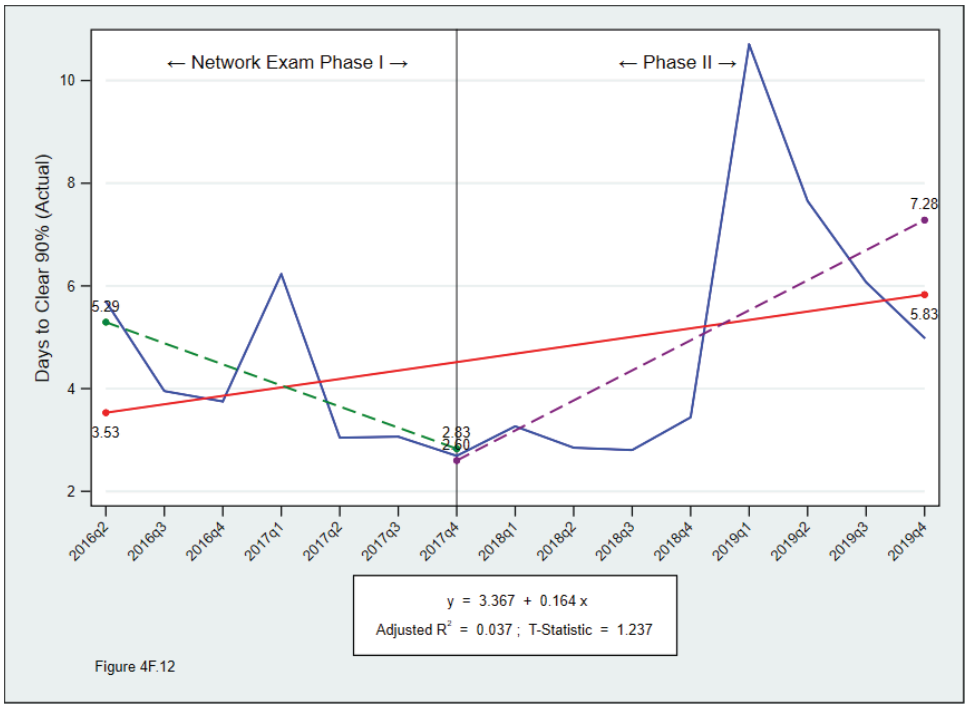

Figure 4F.12. Days required to clear 90% of all out-of-service conditions (actual) had been dropping during the first two years of Frontier ownership, but that trend has been getting longer over the 2018-2019 period.

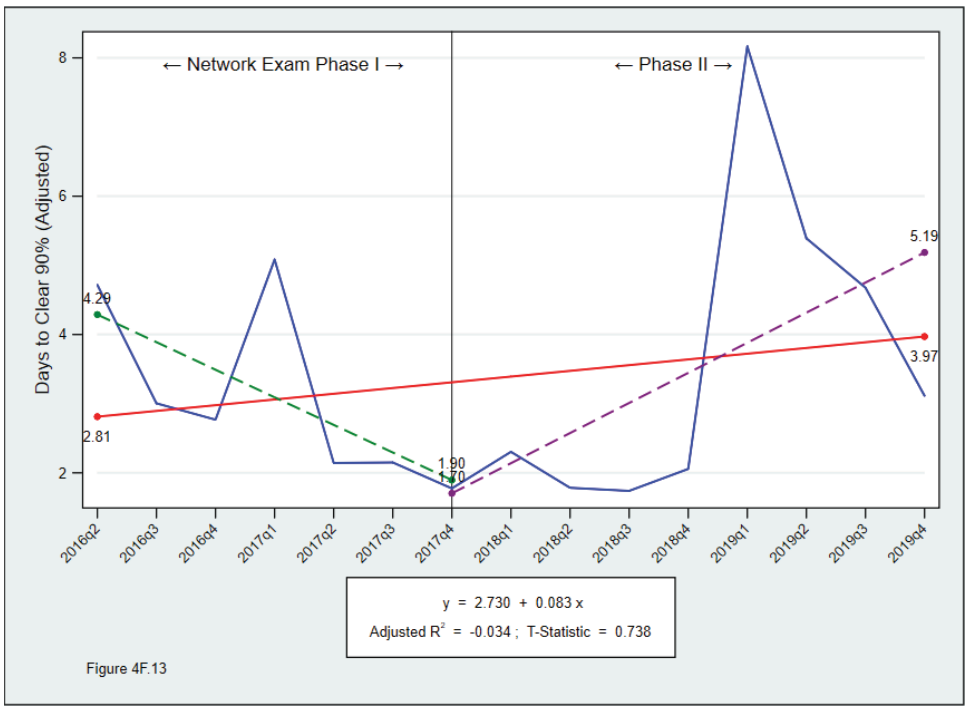

Figure 4F.13. Days required to clear 90% of all out-of-service conditions (adjusted for Sundays and holidays) had been dropping during the first two years of Frontier ownership, but that trend has been getting longer over the 2018-2019 period.

Table 4F.8(a) and (b) provide the results of linear regression trend line calculations for the GO 133-C/D §3.4(c) "minimum standard" of "90% of all out of service trouble reports within 24 hours" for each of the Frontier California Reporting Units. Table 4F.8(a) covers the full 45 month period of Frontier ownership;Talbe 4F.8(b) is limited to the Phase 2 2018-2019 period. As with AT&T, there was considerable variation across all of Frontier's 201 Reporting Units both in terms of percent of out-of-service trouble tickets cleared within 24 hours and the number of days required to clear 90% of all out-of-service conditions. The tables also provide similar trend line calculations for the number of days required to clear 90% of all out-of-service conditions, the number of out-of-service reports per 100 access lines, and the average out-of-service duration. The individual wire center regression calculations shown on Tables 4F.8(a) and (b) were prepared using quarterly time-series data. The tables provide the starting and ending predicted values for the variable being examined (e.g., the starting and ending predicted values for the percentage of out-of-service tickets cleared within 24 hours) and the mean value over the full 45-month period (Table 4F.8(a)) or the 2-year Phase 2 period (Table 4F.8(b)).

The values shown for the trend lines are the coefficients of the independent variable in each case – i.e., the quarterly time period – which when applied to the time variable produced the predicted value for the percent cleared within 24 hours, or the number of days required to clear 90%. The coefficient would appear graphically as the slope of a plotted trend line. For the "percentage cleared within 24 hours" metric, a positive value of the coefficient indicates improvement over time (i.e., an upward sloping trend line); a negative value indicates that over time the ILEC's record of meeting this standard has been deteriorating. For "days required to clear 90%," a negative value of the slope of the trend line indicates that, over time, it is taking less time for the ILEC to meet the 90% completion objective – thus, an improvement in performance. Positive values for the coefficient of "days required to clear 90%" indicates that it is taking longer for the Company to reach the target 90% cleared threshold.

We have sorted these tables by the coefficient of Percent Cleared within 24 Hours, from lowest (i.e., most negative, or worst result) to highest (most positive, or best result). The "Coefficients" shown for each of the four metrics on this table represent the slope of the estimated trend line based upon the actual out-of-service incidents experienced in the wire center over the full 45-month period (Table 4F-8(a)) and for the 2-year 2018-2019 period (Table 4F-8(b)). A positive value for the coefficient indicates an upward trend – i.e., that if plotted on a graph the trend line would go from the lower left to the upper right of the chart. The higher the positive value of a coefficient, the greater the rate of increase over time.

Table 4F.8(a)

FRONTIER CALIFORNIA
WIRE CENTER PERFORMANCE TRENDS
OVER THE PERIOD 2Q2016-4Q2019

Sorted by Coefficient Of Pct Cleared within 24 hours

		OOS Ratio (actual)						Average Duration (adjusted)						Pct cleared within 24 hrs (actual)						Days to Clear 90% (actual)					
Wire Center Name	CLLI	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val
LEMON COVE	LMCVCAXF	1.16	-0.0774	-0.9841	65.7%	1.71	0.62	3118	327.43	1.3308	79.4%	826	5410	33.31	-5.9683	-3.3566	99.5%	75.09	-8.46	3.47	0.3968	1.4608	83.2%	0.69	6.25
FORT IRWIN	FTIRCAXF	0.11	-0.0183	-3.0755	99.1%	0.23	-0.02	1044	-281.99	-2.6455	98.0%	3018	-930	34.44	-5.5952	-2.5050	97.4%	73.61	-4.72	1.37	-0.3940	-2.2282	95.6%	4.13	-1.39
PARKFIELD	PRFDCAXF	0.51	-0.0272	-0.3491	26.7%	0.70	0.32	557	-98.19	-1.4056	81.7%	1245	-130	22.67	-5.0357	-2.7977	98.5%	57.92	-12.58	0.70	-0.1242	-1.2952	78.2%	1.57	-0.17
EL MIRAGE	ELMGCAXF	1.13	0.0402	1.0046	66.7%	0.84	1.41	4280	447.74	2.4643	97.2%	1146	7414	39.73	-4.2823	-2.2370	95.7%	69.71	9.75	6.73	0.6304	1.1760	73.9%	2.32	11.14
INDEPENDENCE	INDPCAXF	0.94	0.0150	0.3820	29.1%	0.83	1.04	5991	868.33	2.1127	94.5%	-88	12069	48.67	-4.2200	-2.0246	93.6%	78.21	19.13	10.49	1.5847	1.2739	77.5%	-0.60	21.58
SANGER	SNGRCAXF	1.23	0.0676	3.2928	99.4%	0.76	1.70	3185	374.23	3.4551	99.6%	565	5805	47.61	-3.6949	-3.7878	99.8%	73.47	21.74	4.21	0.4261	3.5409	99.6%	1.23	7.19
GUADALUPE	GDLPCAXG	0.32	0.0015	0.1720	13.4%	0.31	0.33	2842	236.31	2.0705	94.1%	1188	4496	51.54	-3.5926	-3.1992	99.3%	76.69	26.39	4.98	0.3889	1.2598	77.0%	2.25	7.70
REEDLEY	RDLYCAXF	1.12	0.0463	2.7967	98.5%	0.80	1.45	2644	241.08	2.7859	98.5%	957	4332	50.95	-3.4419	-3.4580	99.6%	75.04	26.86	3.67	0.2682	2.2328	95.6%	1.79	5.54
CROWLEY LAKE	CRLKCAXF	0.65	-0.0173	-0.8826	60.7%	0.78	0.53	2837	183.65	1.4607	83.2%	1552	4123	50.75	-3.3959	-1.6223	87.1%	74.52	26.98	3.61	0.1483	0.8843	60.7%	2.57	4.65
BRSW YERM/YERMO	YERMCAXF	1.58	0.0741	1.4865	83.9%	1.06	2.10	3144	319.07	2.4698	97.2%	910	5377	46.72	-3.0264	-1.5999	86.6%	67.91	25.54	4.48	0.3770	2.2151	95.5%	1.84	7.12
JOSHUA TREE	JSTRCAXF	0.81	0.0339	3.3093	99.4%	0.57	1.04	3715	387.51	2.3025	96.2%	1003	6428	49.65	-2.9993	-1.7726	90.0%	70.64	28.65	5.30	0.4801	2.2710	95.9%	1.94	8.66
ORLEANS	ORLNCAXF	0.76	0.0306	0.9505	64.1%	0.54	0.97	3528	141.19	1.1740	73.9%	2540	4517	33.90	-2.9840	-1.6525	87.8%	54.79	13.01	4.24	0.1173	0.9524	64.2%	3.42	5.06
JUNE LAKE	JNLKCAXF	0.59	-0.0324	-1.0474	68.6%	0.82	0.37	2705	295.14	2.0873	94.3%	639	4771	48.39	-2.9818	-1.3130	78.8%	69.26	27.52	4.70	0.6310	1.5936	86.5%	0.28	9.11
SUMMIT VLY	SMVYCAXF	2.63	0.0194	0.1960	15.2%	2.49	2.76	2811	149.90	1.3961	81.4%	1762	3861	40.72	-2.9799	-1.3797	80.9%	61.58	19.87	4.25	0.2482	1.0861	70.3%	2.52	5.99
GRANT GROVE VILLAGE	GGVGCAXF	1.07	0.0300	0.5800	42.8%	0.86	1.28	4296	422.06	1.7594	89.8%	1341	7250	29.45	-2.9140	-2.1157	94.6%	49.85	9.05	6.49	0.6876	2.1594	95.0%	1.67	11.30
MIRANTPHST	MRMNCASF	4.24	0.2867	1.7900	90.3%	2.23	6.24	5259	639.83	3.0071	99.0%	780	9738	34.75	-2.7717	-1.6802	88.3%	54.15	15.34	8.11	0.9057	2.6548	98.0%	1.77	14.45
MCKITTRICK	MCKTCAXF	1.19	0.0955	2.1017	94.4%	0.52	1.86	3470	308.85	1.3160	78.9%	1308	5632	44.96	-2.6204	-1.1615	73.4%	63.31	26.62	5.15	0.4023	1.1433	72.6%	2.33	7.97
BADGER	BDGRCAXF	5.00	0.2938	1.4373	82.6%	2.95	7.06	4390	482.50	2.4811	97.2%	1013	7768	30.99	-2.5680	-1.5622	85.8%	48.97	13.02	6.55	0.7345	1.7900	90.3%	1.41	11.69
MAMMOTH LAKES	MMLKCAXF	0.44	0.0193	1.7528	89.7%	0.30	0.57	4713	254.00	0.9862	65.8%	2935	6491	46.52	-2.5670	-2.6050	97.8%	64.49	28.55	11.36	0.3414	0.2993	23.1%	8.97	13.75
LOMPOC/VANDENBERG AFB	LMPCCAXF/	0.53	0.0152	1.4774	83.7%	0.42	0.63	3829	473.68	2.9327	98.8%	513	7145	46.72	-2.5587	-2.1039	94.5%	64.63	28.81	5.01	0.4331	1.9225	92.3%	1.98	8.04
SQUAW VALLEY	SVYFCAXF	2.70	0.1031	0.7900	55.6%	1.98	3.42	3518	405.06	2.0053	93.4%	682	6353	34.41	-2.5297	-1.4240	82.2%	52.11	16.70	4.90	0.5876	1.9659	92.9%	0.79	9.01
ETIWANDA	ETWNCAXF	0.47	0.0208	3.1950	99.3%	0.33	0.62	2472	177.35	1.9847	93.1%	1231	3714	53.52	-2.4549	-1.4452	82.8%	70.70	36.33	3.89	0.4426	2.0961	94.4%	0.79	6.99
COLFAX	CLFXCAXF	1.24	0.0333	0.7574	53.8%	1.01	1.47	2625	119.51	2.7139	98.2%	1789	3462	42.29	-2.4450	-2.5142	97.4%	59.40	25.17	3.97	0.1243	1.6220	87.1%	3.10	4.84
ROBBINS	RBNSCAXG	1.41	0.0344	0.8318	57.9%	1.17	1.65	3002	303.79	3.5430	99.6%	875	5128	18.56	-2.4405	-1.9847	93.1%	35.64	1.47	3.37	0.3116	2.4455	97.1%	1.19	5.55
FARMERSVILLE	FRVLCAXF	1.25	0.0916	3.3331	99.5%	0.61	1.90	2681	123.01	1.6795	88.3%	1820	3542	46.48	-2.4109	-2.6222	97.9%	63.36	29.61	4.07	0.2081	1.9220	92.3%	2.61	5.53
MORGAN HILL	MRHLCAXF	0.63	0.0077	0.5248	39.1%	0.57	0.68	4196	377.43	2.2984	96.1%	1554	6838	37.37	-2.3370	-1.9993	93.3%	53.73	21.01	5.33	0.3559	1.9447	92.6%	2.84	7.82
LEGGETT	LGGTCAXF	2.14	0.2322	2.6923	98.2%	0.51	3.76	6885	702.11	1.9544	92.7%	1970	11799	31.06	-2.3031	-1.1451	72.7%	47.18	14.94	8.84	1.0082	1.7897	90.3%	1.78	15.89
BISHOP	BSHPCAXG	0.55	0.0101	0.6991	50.3%	0.48	0.62	3390	249.08	2.4087	96.8%	1646	5133	46.58	-2.2837	-1.8712	91.6%	62.57	30.59	4.62	0.3227	2.3052	96.2%	2.36	6.88
TWENTYNINE PALMS/MARINE BASE/	TWPLCAXF/	1.34	0.1144	3.1926	99.3%	0.54	2.14	3420	285.95	1.9869	93.2%	1418	5421	48.55	-2.2604	-1.4187	82.0%	64.37	32.72	5.12	0.4086	2.0120	93.5%	2.26	7.98
PINYON	PNYNCAXF	1.56	0.0953	1.2987	78.3%	0.89	2.22	3182	154.69	1.4007	81.5%	2100	4265	40.19	-2.2471	-1.3166	78.9%	55.92	24.46	4.63	0.0642	0.3616	27.7%	4.18	5.08
FOWLER	FWLRCAXF	1.34	0.0574	2.6057	97.8%	0.94	1.74	2442	212.19	2.3307	96.3%	957	3927	52.10	-2.1656	-1.8292	91.0%	67.26	36.94	3.39	0.2484	2.2846	96.0%	1.65	5.13
SALTON CITY	SLCYCAXF	5.69	0.5352	3.6998	99.7%	1.95	9.44	3023	181.14	1.6876	88.5%	1755	4291	45.88	-2.1513	-1.3466	79.9%	60.94	30.82	4.24	0.1198	0.9216	62.6%	3.40	5.08
SANTA MARIA/ORCUTT	SNTMCAXF	0.35	0.0028	0.3938	30.0%	0.33	0.37	4681	615.99	2.1894	95.3%	369	8993	47.90	-2.1277	-1.9953	93.3%	62.80	33.01	4.93	0.4098	1.8632	91.5%	2.06	7.79
HOMESTEAD VALLEY	HMVYCAXF	1.41	0.1109	2.7554	98.4%	0.63	2.18	3437	300.26	2.0904	94.3%	1335	5539	46.81	-2.1019	-1.2733	77.5%	61.52	32.10	4.86	0.4304	1.8988	92.0%	1.84	7.87
APPLE VALLEY/DESERT KNOLLS	APVYCAXF/	0.68	0.0237	1.8460	91.2%	0.52	0.85	3020	166.98	1.4994	84.2%	1851	4189	47.87	-2.0943	-1.6032	86.7%	62.53	33.21	4.53	0.2426	1.5004	84.3%	2.83	6.22
DUNLAP	DNLPCAXF	5.18	0.2711	1.8442	91.2%	3.28	7.07	3987	413.72	2.0886	94.3%	1091	6883	42.17	-2.0940	-1.5109	84.5%	56.83	27.51	5.67	0.7105	2.4153	96.9%	0.69	10.64
TRONA	TRONCAXF	1.25	0.0481	1.0012	66.5%	0.92	1.59	3502	341.62	2.8454	98.6%	1110	5893	28.43	-2.0703	-2.1683	95.1%	42.92	13.94	5.20	0.6236	3.1934	99.3%	0.83	9.56
IDYLLWILD	IDYLCAXF	0.91	0.0338	1.9668	92.9%	0.68	1.15	3168	228.35	2.2428	95.7%	1570	4766	45.22	-2.0551	-1.1356	72.3%	59.61	30.84	4.28	0.3268	2.2612	95.8%	2.00	6.57
GILROY	GLRYCAXF	0.68	0.0127	0.9467	63.9%	0.59	0.77	4007	385.50	2.5741	97.7%	1309	6706	36.90	-1.9967	-1.5617	85.8%	50.88	22.93	5.39	0.4244	2.4285	97.0%	2.42	8.36
PINE CREEK	PNCKCAXF	0.89	-0.0166	-0.4626	34.9%	1.00	0.77	4077	360.93	1.4846	83.9%	1551	6604	31.84	-1.9269	-1.4315	82.4%	45.33	18.35	5.20	0.1664	0.7307	52.2%	4.03	6.36
PHELAN	PHLNCAXF	0.85	0.0472	2.8887	98.7%	0.52	1.18	3242	188.77	1.4962	84.2%	1920	4563	48.57	-1.9229	-1.2610	77.1%	62.03	35.11	4.95	0.3272	1.8658	91.5%	2.66	7.24
SAN JACINTO	SNJCCAXG	0.66	0.0194	2.2802	96.0%	0.53	0.80	3256	211.06	1.9161	92.2%	1779	4734	49.84	-1.8479	-1.2852	77.9%	62.78	36.90	4.09	0.2467	1.6815	88.3%	2.37	5.82
LOS ALAMOS	LSALCAXF	0.47	0.0124	1.1253	71.9%	0.38	0.55	3618	209.44	1.4091	81.8%	2152	5084	36.27	-1.8177	-1.4651	83.3%	49.00	23.55	4.94	0.1483	0.8351	58.1%	3.90	5.98
INDIO/LA QUINTA/MECCA/NORTH SH	INDICAXG/L	1.47	0.0388	1.7849	90.2%	1.20	1.74	3009	115.70	1.5567	85.6%	2199	3819	48.81	-1.7951	-1.3219	79.1%	61.37	36.24	4.18	0.1597	1.3982	81.5%	3.06	5.30
YUCCA VALLEY	YCVYCAXG	0.92	0.0255	1.2801	77.7%	0.74	1.10	3709	330.40	1.9714	93.0%	1396	6021	47.03	-1.7944	-1.0497	68.7%	59.59	34.46	5.53	0.4863	2.0115	93.5%	2.13	8.94
SOLVANG (SANTA YNEZ)	SLVNCAXG	0.80	0.0332	1.4939	84.1%	0.57	1.03	3835	241.74	1.5166	84.7%	2143	5527	33.92	-1.7307	-1.7414	89.5%	46.03	21.80	5.77	0.4154	1.5289	85.0%	2.86	8.68
LINDSAY/STRATHMORE	LNDSCAXF/	1.28	0.0442	1.5855	86.3%	0.97	1.59	2638	113.22	1.1847	74.3%	1846	3431	49.91	-1.6973	-1.5115	84.5%	61.79	38.03	3.78	0.1364	1.0983	70.8%	2.83	4.74
BRIDGEPORT	BRPTCAXF	0.66	0.0192	0.8246	57.6%	0.53	0.80	3413	401.32	1.9153	92.2%	603	6222	51.20	-1.6890	-1.0708	69.6%	63.03	39.38	5.36	0.7771	2.1662	95.1%	-0.08	10.80
ONTARIO/ONTARIO SOUTH/ONTARI(	ONTRCAX/(	0.32	0.0095	1.6874	88.5%	0.25	0.38	2296	71.77	1.0441	68.5%	1794	2799	52.61	-1.6458	-1.1845	74.3%	64.14	41.09	3.24	0.0628	0.7169	51.4%	2.80	3.68
TAFT/FELLOWS/MARICOPA	TAFTCAXF/	0.78	0.0064	0.3400	26.1%	0.74	0.83	2853	127.24	1.9529	92.7%	1962	3744	48.20	-1.5788	-1.3073	78.6%	59.25	37.15	3.80	0.1522	1.3630	80.4%	2.73	4.86
PALM DESERT/THOUSAND PALMS/B	PLDSCAXF/	0.95	0.0165	1.2151	75.4%	0.84	1.07	3350	133.45	1.6550	87.8%	2416	4284	47.05	-1.5767	-1.1509	72.9%	58.08	36.01	4.24	0.1339	1.1689	73.7%	3.30	5.17
LOST HILLS	LSHLCAXF	1.02	0.0214	0.4945	37.1%	0.87	1.17	3909	-183.95	-1.1949	74.7%	5196	2621	28.48	-1.5591	-1.1092	71.3%	39.39	17.57	6.74	-0.9937	-1.5546	85.6%	13.70	-0.21
BARSTOW/BARSTOW SOUTH	BRSWCAXF	0.82	0.0254	1.4313	82.4%	0.65	1.00	3193	183.74	1.5313	85.0%	1907	4479	49.45	-1.5503	-1.0496	68.7%	60.30	38.60	4.81	0.2910	1.6688	88.1%	2.77	6.84
TIMBER COVE	TMCVCAXH	1.30	0.0440	0.9653	64.8%	0.99	1.61	3725	233.96	1.4052	81.7%	2088	5363	39.23	-1.5424	-1.3899	81.2%	50.03	28.43	5.71	0.2504	1.0342	68.0%	3.96	7.47
SEA RANCH	SERNCAXG	1.24	0.0037	0.1672	13.0%	1.22	1.27	4154	492.29	2.5468	97.6%	708	7600	43.41	-1.5307	-1.2401	76.3%	54.12	32.69	5.79	0.5356	2.1592	95.0%	2.04	9.54
PERRIS(LAKEVIEWNU)	PERSCAXF	1.25	0.0623	2.1942	95.3%	0.82	1.69	3174	193.07	1.9144	92.2%	1823	4526	47.66	-1.4993	-1.2472	76.6%	58.15	37.16	4.35	0.1979	1.4999	84.2%	2.97	5.74
NEWBERRY SPRINGS	NWBRCAXF	2.86	0.0969	1.2441	76.5%	2.19	3.54	4166	186.99	1.2578	76.9%	2857	5475	37.91	-1.4904	-0.9328	63.2%	48.34	27.48	6.81	0.3285	1.3721	80.7%	4.51	9.11
CAZADERO	CZDRCAXG	1.71	0.0365	0.7165	51.4%	1.46	1.97	4157	322.52	1.4453	82.8%	1900	6415	41.82	-1.4758	-1.0984	70.8%	52.15	31.49	5.76	0.3335	1.1983	74.8%	3.43	8.09
LEE VINING	LVNGCAXF	0.78	0.0235	0.6718	48.6%	0.61	0.94	4580	382.02	2.0995	94.4%	1906	7254	32.78	-1.4583	-0.7693	54.5%	42.99	22.57	6.01	0.6080	2.0705	94.1%	1.76	10.27
ADELANTO	ADLNCAXF	0.54	0.0297	2.0579	94.0%	0.33	0.74	3055	157.38	1.4067	81.7%	1954	4157	49.42	-1.4237	-1.2416	76.4%	59.39	39.46	4.31	0.1016	0.7158	51.3%	3.60	5.02
PERRIS	PERSCAXF	0.70	0.0382	2.6278	97.9%	0.43	0.97	2967	160.46	1.4175	82.0%	1844	4091	49.55	-1.3844	-0.9134	62.2%	59.24	39.86	4.13	0.2766	1.6640	88.0%	2.19	6.07
WRIGHTWOOD	WRWDCAXI	0.79	0.0281	1.4586	83.2%	0.59	0.99	3934	94.24	0.5361	39.9%	3275	4594	43.49	-1.3795	-0.8708	60.0%	53.15	33.84	5.01	0.2136	1.1922	74.6%	3.52	6.51
LOS GATOS	LSGTCAXA/	1.02	0.0158	0.5616	41.6%	0.91	1.13	4686	281.60	1.7369	89.4%	2715	6657	33.53	-1.3727	-1.1426	72.6%	43.14	23.93	6.41	0.3325	1.7783	90.1%	4.08	8.74
BENTON	BNTNCAXF	1.52	0.1090	2.5025	97.4%	0.76	2.29	3697	163.94	1.7683	90.0%	2549	4844	27.45	-1.3620	-0.8798	60.5%	36.99	17.92	4.75	0.1286	1.0265	67.7%	3.85	5.65
CUCAMONGA (SAGE)	CCMNCAXF	2.99	0.2121	4.8330	100.0%	1.50	4.47	3198	197.37	2.7784	98.4%	1817	4580	45.03	-1.3129	-0.8980	61.4%	54.22	35.84	4.54	0.2077	1.7289	89.3%	3.08	5.99
HEMET/VALLE VISTA	HEMTCAXF,	0.60	0.0086	0.8393	58.4%	0.54	0.66	3306	199.01	1.3165	78.9%	1912	4699	51.13	-1.2560	-0.7989	56.1%	59.92	42.34	4.88	0.3165	1.3678	80.5%	2.67	7.10
BERRENDA MESA	BRMSCAXF	3.13	0.4707	1.9367	92.5%	-0.16	6.43	2456	93.65	0.5601	41.5%	1800	3111	8.67	-1.2500	-0.8805	60.5%	17.42	-0.08	2.71	0.1913	0.8424	58.5%	1.37	4.05
KERNVILLE	KRVLCAXF	1.38	0.0148	0.3758	28.7%	1.28	1.48	4157	287.85	1.6959	88.6%	2142	6172	37.35	-1.2261	-1.0567	69.0%	45.94	28.77	6.00	0.4351	1.9358	92.5%	2.96	9.05
NOVATO	NOVTCAXF	0.57	0.0265	2.1678	95.1%	0.38	0.75	3541	205.91	2.0487	93.9%	2100	4982	37.41	-1.2105	-1.1305	72.1%	45.88	28.94	5.12	0.3131	2.3146	96.2%	2.93	7.31
DESERT SHORES	DSSHCAXF	3.50	0.3557	1.7361	89.4%	1.01	5.99	2461	40.02	0.4085	31.0%	2181	2741	38.02	-1.1885	-0.6700	48.5%	46.34	29.70	3.75	0.0400	0.2597	20.1%	3.47	4.03
HESPERIA	HSPRCAXF	0.70	0.0222	1.1786	74.0%	0.55	0.86	3146	153.53	1.2197	75.6%	2071	4221	49.05	-1.1839	-0.8759	60.3%	57.34	40.77	4.72	0.2641	1.4989	84.2%	2.87	6.57
SAN BERNARDINO/SAN BERARDINO	SNBRCAXK	0.91	0.0286	1.2707	77.4%	0.71	1.11	3086	52.15	0.5846	43.1%	2721	3451	43.10	-1.1805	-0.9379	63.5%	51.36	34.83	4.41	0.1428	1.2320	76.0%	3.41	5.41
CALIMESA/YUCAIPA	CLMSCAXF,	0.84	0.0173	1.4096	81.8%	0.72	0.96	3787	84.58	0.8053	56.5%	3195	4379	38.86	-1.1780	-0.9547	64.3%	47.11	30.61	5.46	0.2294	1.4609	83.2%	3.85	7.07

ECONOMICS AND TECHNOLOGY, INC.

Table 4F-8(a) (continued)

Sorted by Coefficient Of Pct Cleared within 24 hours

Wire Center Name	CLLI	OOS Ratio (actual) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Average Duration (adjusted) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Pct cleared within 24 hrs (actual) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Days to Clear 90% (actual) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val
MORONGO VALLEY	MRVYCAXF	1.81	0.1813	3.5553	99.6%	0.54	3.08	4172	496.11	2.6390	98.0%	699	7645	45.85	-1.1769	-0.6169	45.2%	54.08	37.61	6.07	0.7299	2.7453	98.3%	0.96	11.18
LUCERNE VALLEY	LCVYCAXF	1.89	0.1155	2.1597	95.0%	1.08	2.70	3001	182.48	1.5110	84.5%	1724	4279	42.51	-1.1681	-0.8470	58.8%	50.69	34.33	4.39	0.2077	1.4580	83.1%	2.93	5.84
TEMECULA/RANCHO CALIFORNIA/TE	TMCLCAXG	0.45	0.0072	1.3086	78.7%	0.39	0.50	2833	60.38	0.6084	44.7%	2410	3255	48.90	-1.1498	-0.7203	51.6%	56.95	40.86	3.45	0.0061	0.0557	4.4%	3.40	3.49
CARPINTERIA	CRPRCAXF	0.84	0.0524	1.7550	89.7%	0.47	1.20	3885	55.89	0.2175	16.9%	3494	4276	45.64	-1.1498	-0.7287	52.1%	53.69	37.59	7.00	0.0468	0.0690	5.4%	6.67	7.33
UPLAND	UPLDCAXF	0.47	0.0033	0.3559	27.2%	0.45	0.50	2438	80.32	0.9739	65.2%	1875	3000	52.08	-1.1474	-0.7592	53.9%	60.11	44.05	3.47	0.1077	1.0010	66.5%	2.71	4.22
VICTORVILLE/HELENDALE-SILVER L	VTVLCAXA/	0.45	0.0166	2.4588	97.1%	0.34	0.57	3281	147.03	1.2323	76.0%	2251	4310	45.03	-1.1271	-0.9061	61.9%	52.92	37.15	4.70	0.2399	1.4423	82.7%	3.02	6.38
DESERT HOT SPRINGS	DHSPCAXF	2.26	0.0478	1.7389	89.4%	1.92	2.59	3453	62.00	0.6555	47.6%	3019	3887	41.48	-1.1184	-0.8082	56.6%	49.31	33.65	4.73	0.0414	0.2832	21.8%	4.44	5.02
RIDGECREST	RDGCCAXG	1.01	0.0381	1.7921	90.4%	0.74	1.28	3444	228.15	1.5469	85.4%	1847	5041	44.37	-1.0925	-1.0081	66.8%	52.02	36.73	5.07	0.3193	1.6602	87.9%	2.83	7.30
EXETER	EXTRCAXF	0.88	0.0512	2.9222	98.8%	0.53	1.24	2841	81.24	0.7962	56.0%	2272	3410	51.82	-1.0856	-1.0816	70.1%	59.42	44.22	3.87	0.1616	1.1581	73.2%	2.74	5.00
SAN FERNANDO (SNFN SNFN)	SNFNCAXG	0.55	0.0136	0.6716	48.6%	0.45	0.64	2815	120.51	1.1380	72.4%	1971	3658	49.52	-1.0832	-0.8275	57.7%	57.10	41.93	4.02	0.1593	1.1353	72.3%	2.90	5.13
MARSHALL/MUSCOY	SNBRCAXH	0.92	0.0413	1.5565	85.6%	0.63	1.21	3506	48.97	0.5744	42.4%	3163	3848	40.76	-1.0538	-0.9263	62.9%	48.14	33.39	4.90	0.1129	0.9919	66.1%	4.11	5.69
MALIBU	MALBCAXG	0.42	0.0194	1.3563	80.2%	0.28	0.55	5597	645.70	2.1702	95.1%	1077	10117	40.63	-1.0408	-0.9054	61.8%	47.91	33.34	9.64	1.1970	2.2505	95.8%	1.26	18.02
MCFARLAND	MCFACAXF	1.10	0.0759	2.7906	98.5%	0.57	1.63	1963	53.39	1.2097	75.2%	1589	2336	55.38	-1.0408	-0.9410	63.6%	62.66	48.09	3.11	0.0852	1.0684	69.5%	2.52	3.71
SEPULVEDA	SPLVCAXF	0.54	0.0212	1.5076	84.4%	0.39	0.68	2824	97.46	0.7942	55.9%	2141	3506	49.90	-1.0380	-0.8536	59.1%	57.17	42.64	4.11	0.1431	0.9213	62.6%	3.11	5.11
SUN CITY/QUAIL VALLEY	SNCYCAXF/	0.47	0.0241	3.1003	99.2%	0.30	0.64	2720	44.97	0.4808	36.1%	2406	3035	52.31	-1.0234	-0.6560	47.7%	59.47	45.14	3.49	-0.0364	-0.3392	26.0%	3.74	3.23
REDONDO BEACH	RDBHCAXF	0.35	-0.0030	-0.3176	24.4%	0.37	0.33	2431	-100.32	-1.2401	76.3%	3133	1729	50.07	-1.0223	-0.6312	46.1%	57.23	42.92	3.46	-0.1462	-1.3157	78.9%	4.48	2.44
INYOKERN	INYKCAXF	1.44	0.0510	1.3250	79.2%	1.09	1.80	3286	293.71	1.9152	92.2%	1230	5342	50.32	-1.0147	-0.7790	55.0%	57.42	43.22	4.60	0.3975	1.8532	91.3%	1.81	7.38
MENTONE	MENTCAXF	0.75	0.0228	1.5129	84.6%	0.59	0.91	4301	180.07	1.3014	78.4%	3041	5562	33.66	-1.0079	-0.8659	59.8%	40.72	26.61	6.20	0.2812	1.3798	80.9%	4.23	8.17
ANZA	ANZACAXF	2.24	0.2143	2.9049	98.8%	0.74	3.74	3863	320.03	2.8436	98.6%	1623	6104	39.07	-1.0074	-0.8377	58.3%	46.12	32.02	5.59	0.4311	2.4008	96.8%	2.57	8.61
TIVY VALLEY	TVVYCAXF	2.98	0.0793	0.9421	63.7%	2.42	3.53	2919	240.89	2.0943	94.4%	1232	4605	49.81	-0.9746	-0.7946	55.9%	56.63	42.99	4.35	0.4901	3.4398	99.6%	0.92	7.78
FARMINGTON	FRTNCAXF	1.48	-0.0217	-0.6273	45.9%	1.63	1.33	2892	68.64	0.6082	44.6%	2412	3373	52.89	-0.9668	-0.5284	39.4%	59.66	46.12	4.83	0.0081	0.0359	2.8%	4.77	4.88
WEIMAR	WEMRCAXF	1.00	0.0359	1.2619	77.1%	0.75	1.25	2572	51.40	1.2123	75.3%	2212	2932	35.99	-0.9579	-0.8782	60.4%	42.70	29.28	3.91	0.0846	1.3644	80.4%	3.32	4.50
ALDERPOINT	ALPNCAXF	2.76	-0.1314	-1.8578	91.4%	3.68	1.84	6965	406.11	1.0606	69.2%	4122	9807	24.35	-0.9327	-0.7846	55.3%	30.88	17.82	11.83	0.6972	0.8499	58.9%	6.95	16.71
WEAVERVILLE	WVVLCAXG	0.64	0.0173	1.5899	86.4%	0.52	0.76	2702	48.49	0.5749	42.5%	2363	3042	49.61	-0.9316	-0.7940	55.9%	56.13	43.09	3.94	0.0393	0.3303	25.4%	3.67	4.22
LAKE ISABELLA	LKISCAXF	1.11	0.0357	1.0675	69.5%	0.86	1.36	3364	134.75	0.8931	61.2%	2421	4307	44.02	-0.9212	-0.7974	56.0%	50.47	37.58	5.05	0.2211	1.2135	75.3%	3.50	6.59
PALM SPRINGS/RANCHO MIRAGE	PLSPCAXG/	1.23	0.0239	1.3819	81.0%	1.06	1.40	3761	198.93	1.4498	82.9%	2369	5154	44.07	-0.9193	-0.6796	49.1%	50.51	37.64	4.88	0.1442	0.9243	62.8%	3.87	5.89
WHITEHORN	WHTNCAXF	1.61	0.0122	0.2672	20.6%	1.53	1.70	4911	442.54	2.0466	93.9%	1813	8009	30.86	-0.9176	-0.8659	59.8%	37.29	24.44	7.15	0.6122	1.9537	92.7%	2.86	11.43
SYLMAR	SYLMCAXF	0.52	0.0157	1.1089	71.2%	0.41	0.63	3046	126.79	0.9924	66.1%	2159	3934	48.34	-0.9023	-0.7292	52.1%	54.66	42.02	4.41	0.1029	0.6617	48.0%	3.69	5.13
MANTECA/LATHROP	MNTCCAXG	0.61	0.0156	1.4184	82.0%	0.50	0.72	2772	113.42	1.6235	87.2%	1978	3566	47.36	-0.8869	-0.8177	57.2%	53.57	41.16	4.16	0.2013	1.7187	89.1%	2.75	5.57
BUTTONWILLOW	BTNWCAXF	1.52	0.0184	0.3888	29.6%	1.40	1.65	3459	74.68	0.6443	46.9%	2936	3982	32.56	-0.8762	-0.9173	62.4%	38.70	26.43	5.50	0.1641	0.6381	46.6%	4.35	6.65
KNIGHTS LANDING	KNLDCAXF	1.63	0.0110	0.1718	13.4%	1.55	1.71	2741	142.21	1.4629	83.3%	1745	3736	31.83	-0.8676	-0.5162	38.6%	37.90	25.76	4.02	0.3414	1.7845	90.2%	1.63	6.41
MAD RIVER	MDRVCAXF	1.70	0.1353	1.8795	91.7%	0.75	2.65	6234	565.31	2.4245	96.9%	2277	10191	13.22	-0.8464	-0.8416	58.5%	19.14	7.29	7.70	0.5872	1.9488	92.7%	3.59	11.81
PACOIMA	PACMCAXF	0.50	0.0141	1.3945	81.3%	0.40	0.60	3259	-2.32	-0.0162	1.3%	3275	3242	50.47	-0.8347	-0.6695	48.5%	56.31	44.62	4.19	0.0463	0.2814	21.7%	3.86	4.51
CLAREMONT/LA VERNE/SAN DIMAS	CLMTCAXF/	0.45	0.0121	1.4365	82.6%	0.36	0.53	2475	28.83	0.4342	32.9%	2273	2677	49.36	-0.8228	-0.6062	44.5%	55.12	43.61	3.78	0.0672	0.7494	53.3%	3.31	4.25
WILLOW CRK	WWCKCAXI	1.07	0.0319	1.3127	78.8%	0.85	1.29	4703	217.98	1.8964	92.0%	3177	6229	18.65	-0.8199	-1.3392	79.7%	24.39	12.91	6.30	0.2053	1.4124	81.9%	4.87	7.74
RIPON	RIPNCAXF	0.73	0.0271	1.6570	87.9%	0.54	0.92	3011	133.28	1.5656	85.9%	2078	3944	45.18	-0.7953	-0.8093	56.7%	50.75	39.61	4.80	0.2316	1.7712	90.0%	3.18	6.42
MURRIETA	MURTCAXF	0.25	0.0140	5.2672	100.0%	0.15	0.35	2647	77.27	0.7820	55.2%	2106	3188	52.28	-0.7808	-0.4757	35.8%	57.75	46.82	3.45	0.0738	0.6847	49.4%	2.93	3.96
LAKE HUGHES	LKHGCAXF	1.04	0.0575	1.7621	89.8%	0.64	1.45	3551	217.44	1.6170	87.0%	2029	5073	42.96	-0.7559	-0.6380	46.5%	48.25	37.67	5.89	0.3139	1.4488	82.9%	3.69	8.09
DIAMOND BAR	DMBRCAXF	0.32	0.0034	0.3976	30.3%	0.30	0.35	2735	20.00	0.2554	19.8%	2595	2875	48.62	-0.7380	-0.6757	48.9%	53.79	43.46	3.67	0.0503	0.6450	47.0%	3.32	4.02
SUNLD TJNG	SNLDCAXF	0.71	0.0125	0.6089	44.7%	0.62	0.80	3049	68.16	0.5215	38.9%	2572	3526	41.47	-0.7240	-0.6180	45.3%	46.53	36.40	4.21	0.0309	0.1919	14.9%	3.99	4.43
CUYAMA	CUYMCAXF	1.19	-0.0115	-0.2288	17.7%	1.27	1.11	3826	295.93	1.4418	82.7%	1754	5897	25.61	-0.6761	-0.5386	40.1%	30.35	20.88	5.47	0.4298	1.0309	67.9%	2.46	8.47
LANCASTER/QUARTZ HILL	LNCSCAXG	0.54	0.0331	4.0852	99.9%	0.31	0.77	2963	185.91	1.5320	85.0%	1662	4265	49.34	-0.6128	-0.4579	34.5%	53.63	45.05	4.44	0.2751	1.5837	86.3%	2.52	6.37
HOMELAND	HMLDCAXF	1.23	0.0778	2.5538	97.6%	0.68	1.77	3096	-27.73	-0.2017	15.7%	3290	2901	49.07	-0.5811	-0.4268	32.3%	53.13	45.00	4.20	-0.1469	-0.9374	63.4%	5.23	3.17
HAYFORK	HYFKCAXF	0.84	0.0356	1.3037	78.5%	0.59	1.09	2642	42.81	0.5271	39.3%	2342	2942	51.12	-0.5778	-0.3843	29.3%	55.16	47.08	3.81	0.0436	0.3507	26.9%	3.51	4.12
REDLANDS/LOMA LINDA	RDLDCAXF/	0.47	0.0111	1.6587	87.9%	0.39	0.55	3100	32.42	0.3376	25.9%	2873	3327	46.30	-0.5642	-0.4415	33.4%	50.25	42.35	4.34	0.0572	0.4416	33.4%	3.94	4.74
SANTA PAULA	SNPLCAXF	0.92	0.0684	1.9815	93.1%	0.44	1.40	5546	168.26	0.5168	38.6%	4368	6724	36.21	-0.5615	-0.4930	37.0%	40.14	32.28	10.65	0.2985	0.3492	26.8%	8.56	12.74
GRANADA HILLS	GRHLCAXF	0.56	0.0199	1.8043	90.6%	0.42	0.70	3347	52.06	0.3918	29.8%	2983	3712	46.06	-0.5357	-0.4206	31.9%	49.81	42.31	4.28	-0.0142	-0.0858	6.7%	4.37	4.18
NEWBURY PARK	NWPKCAXF	0.19	0.0002	0.0465	3.6%	0.19	0.19	4860	503.99	2.5716	97.7%	1332	8387	46.45	-0.5183	-0.3850	29.4%	50.07	42.82	6.43	0.5139	2.1021	94.4%	2.83	10.03
CRESTLINE	CRLNCAXF	1.21	0.0714	2.4769	97.2%	0.71	1.71	3745	124.36	0.8741	60.2%	2874	4616	43.66	-0.5004	-0.4539	34.3%	47.16	40.16	5.44	0.2477	1.1256	71.9%	3.71	7.17
CAMARILLO	CMRLCAXF	0.25	0.0078	1.8948	91.9%	0.20	0.31	3028	3.12	0.0274	2.1%	3006	3050	45.67	-0.5002	-0.3920	29.9%	49.17	42.16	4.59	-0.0489	-0.2607	20.2%	4.93	4.24
RUNNING SPRINGS	RNSPCAXF	1.04	0.0256	0.8385	58.3%	0.86	1.22	2822	58.33	0.5780	42.7%	2413	3230	51.53	-0.4986	-0.3389	26.0%	55.02	48.04	4.31	0.1398	0.9463	63.9%	3.34	5.29
AZUSA/GLENDORA	AZUSCAXF/	0.67	0.0196	1.4163	82.0%	0.53	0.80	2626	43.83	0.4742	35.7%	2320	2933	49.40	-0.4875	-0.3963	30.2%	52.81	45.99	3.82	0.1154	1.0796	70.0%	3.01	4.62
SANTA BARBARA/GOLETO/MONTECI	SNBBCAXF/	0.77	0.0282	1.2700	77.4%	0.57	0.97	3574	135.60	1.2492	76.6%	2624	4523	42.84	-0.4226	-0.3964	30.2%	45.79	39.88	4.95	0.1369	0.9198	62.6%	3.99	5.91
POMONA	POMNCAXF	0.43	0.0246	2.5987	97.8%	0.26	0.61	2353	2.89	0.0428	3.4%	2333	2373	51.13	-0.4058	-0.3088	23.8%	53.97	48.29	3.42	-0.0009	-0.0088	0.7%	3.43	3.42
MORENO/EDGEMONT/SUNNYMEAD	LNCSCAXF/	0.34	0.0034	0.7692	54.4%	0.31	0.36	2683	100.50	1.0288	67.8%	1980	3386	53.97	-0.4018	-0.2650	20.5%	56.79	51.16	3.78	0.1077	0.8715	60.1%	3.03	4.53
THOUSAND OAKS	THOKCAXF	0.31	-0.0042	-0.5443	40.5%	0.34	0.28	3654	124.22	0.8627	59.6%	2784	4523	48.25	-0.3944	-0.2793	21.6%	51.01	45.49	5.17	0.0947	0.5395	40.1%	4.51	5.83
EL RIO	ELRICAXF	0.25	0.0096	2.8584	98.7%	0.18	0.32	2845	-5.10	-0.0489	3.8%	2881	2809	44.50	-0.3934	-0.3772	28.8%	47.26	41.75	4.52	-0.0796	-0.4849	36.4%	5.08	3.97
PICO RIVERA	PCRVCAXF	0.72	0.0196	0.8735	60.2%	0.58	0.85	2726	66.42	0.5892	43.4%	2261	3191	48.45	-0.3907	-0.2944	22.7%	51.19	45.72	3.74	0.0943	0.6787	49.1%	3.08	4.40
BANNING/BEAUMONT	BNNGCAXF	0.65	0.0245	2.1765	95.1%	0.47	0.82	3601	33.10	0.3106	23.9%	3370	3833	40.86	-0.3629	-0.2797	21.6%	43.40	38.32	5.07	0.1013	0.6339	46.3%	4.36	5.78
TOPANGA	TPNGCAXF	0.68	0.0505	1.5545	85.6%	0.33	1.03	5938	513.67	1.5466	85.4%	2343	9534	22.11	-0.3619	-0.3709	28.3%	24.65	19.58	10.24	0.9329	1.7587	89.8%	3.71	16.77
LENWOOD	LNWDCAXF	1.39	-0.0033	-0.0744	5.8%	1.41	1.37	3395	102.35	0.6080	44.6%	2678	4111	45.68	-0.3463	-0.1946	15.1%	48.10	43.26	5.02	0.3168	1.1954	74.7%	2.80	7.23
WELDON	WLDNCAXF	1.84	-0.0224	-0.3313	25.4%	1.99	1.68	3570	190.48	1.4785	83.7%	2237	4904	35.93	-0.3128	-0.2524	19.5%	38.12	33.74	5.32	0.2997	1.4443	82.8%	3.23	7.42
ELSINORE GRANDE/ELSINORE MAIN	ELSNCAXG/	0.44	0.0287	3.3171	99.4%	0.24	0.64	2711	-26.57	-0.2916	22.5%	2897	2525	50.99	-0.2999	-0.2211	17.2%	53.09	48.89	3.98	-0.1185	-0.9090	62.0%	4.81	3.15
LA HABRA/WHITTIER LA HABRA	LAHBCAXF/	0.75	0.0209	0.8942	61.3%	0.60	0.90	3027	69.00	0.5252	39.2%	2544	3510	47.17	-0.2851	-0.1970	15.3%	49.17	45.18	4.34	0.1574	0.9096	62.0%	3.24	5.44
WHITTIER/WHITTIER TELEGRAPH	WHTRCAXF	0.45	0.0079	0.6682	48.4%	0.39	0.50	2599	20.78	0.2161	16.8%	2453	2744	50.10	-0.2543	-0.1885	14.7%	51.88	48.32	3.80	0.0316	0.2573	19.9%	3.58	4.02
MONROVIA	MNRVCAXG	0.73	0.0261	1.8315	91.0%	0.55	0.91	2365	38.44	0.5725	42.3%	2096	2634	51.29	-0.1379	-0.1252	9.8%	52.26	50.33	3.53	0.1070	1.1249	71.9%	2.78	4.28
OLANCHA (OJAI)	OLNCCAXF	1.00	-0.0077	-0.1813	14.1%	1.05	0.94	6100	278.04	1.4029	81.6%	4154	8046	16.67	-0.1190	-0.0610	4.8%	17.50	15.83	7.19	0.4082	1.3685	80.6%	4.33	10.05
BEL AIR (SOMIS)	BELRCAXF	1.01	0.0225	0.8425	58.5%	0.85	1.17	6078	479.85	1.5607	85.7%	2719	9437	30.52	-0.1089	-0.0882	6.9%	31.29	29.76	11.40	1.0440	1.4135	81.9%	4.09	18.71
THOUSAND OAKS(CONEJO)	THOKCAXH	0.35	-0.0026	-0.2417	18.7%	0.37	0.34	3608	165.69	1.4597	83.2%	2448	4768	44.59	-0.0651	-0.0453	3.5%	45.05	44.14	4.71	0.1485	0.8403	58.4%	3.67	5.75
BORON/NORTH EDWARDS	BORNCAXF	1.02	0.0777	2.9662	98.9%	0.47	1.56	2735	7.16	0.0626	4.9%	2684	2785	50.94	-0.0348	-0.0217	1.7%	51.19	50.70	3.83	0.1278	0.8066	56.6%	2.94	4.72
COVELO	CVELCAXF	2.33	-0.0067	-0.1218	9.5%	2.37	2.28	7093	427.55	1.2200	75.6%	4100	10085	17.97	0.0096	0.0109	0.9%	17.90	18.03	9.06	0.5292	1.2161	75.4%	5.35	12.76
ARROWHEAD	ARHDCAXF	0.85	0.0183	0.7305	52.2%	0.73	0.98	3759	71.31	0.4847	36.4%	3260	4259	43.30	0.0368	0.0263	2.1%	43.04	43.56	5.69	0.0971	0.3796	29.0%	5.01	6.37
COVINA	COVNCAXF	0.52	0.0104	0.8418	58.5%	0.45	0.59	2515	20.26	0.2455	19.0%	2373	2657	52.70	0.0417	0.0353	2.8%	52.40	52.99	3.64	0.0548	0.5551	41.2%	3.25	4.02
OXNARD/OXNARD W WOOLEY	OXNRCAXF	0.41	0.0090	1.2111	75.3%	0.35	0.48	3251	63.24	0.4952	37.1%	2808	3694	43.72	0.0492	0.0395	3.1%	43.37	44.06	4.74	0.1173	0.5656	41.9%	3.92	5.56
LAYTONVILLE	LYVLCAXF	1.73	0.0068	0.1764	13.7%	1.68	1.77	5808	311.66	1.2607	77.0%	3627	7990	25.78	0.0506	0.0468	3.7%	25.42	26.13	8.59	0.5753	1.5055	84.4%	4.57	12.62
ALPAUGH	ALPGCAXF	2.01	-0.0425	-0.3573	27.3%	2.31	1.72	3786	-70.28	-0.4162	31.6%	4278	3294	27.82	0.0508	0.0329	2.6%	27.47	28.18	4.79	-0.1097	-0.5736	42.4%	5.56	4.02
LA PUENTE	LAPNCAXG/	0.69	0.0078	0.5770	42.6%	0.63	0.74	2515	7.46	0.1011	7.9%	2463	2567	51.13	0.0626	0.0533	4.2%	50.69	51.57	3.68	0.0458	0.4440	33.6%	3.36	4.00
LAGUNA BEACH/SOUTH LAGUNA BE	LGBHCAXF/	0.66	0.0353	2.9146	98.8%	0.41	0.91	3566	154.40	1.1252	71.9%	2485	4646	38.35	0.0762	0.0805	6.3%	37.81	38.88	5.65	0.2618	1.1623	73.4%	3.82	7.48
HOOPA	HOPACAXF	0.73	-0.0033	-0.1224	9.6%	0.75	0.70	4955	-19.05	-0.1002	7.8%	5088	4821	15.18	0.0992	0.1447	11.3%	14.48	15.87	9.95	-0.5141	-0.5229	39.0%	13.54	6.35
HUNTINGTON BEACH	HNBHCAXG	0.70	0.0161	0.9929	66.1%	0.58	0.81	3465	48.86	0.3591	27.5%	3123	3807	43.42	0.1058	0.1113	8.7%	42.68	44.16	5.16	0.1172	0.5737	42.4%	4.34	5.98
PACIFIC PALISADES	PCPLCAXF	0.67	0.0234	1.5065	84.4%	0.50	0.83	2871	-21.83	-0.2334	18.1%	3024	2718	47.05	0.1695	0.1407	11.0%	45.86	48.23	3.91	0.0094	0.0815	6.4%	3.84	3.98
CALIFORNIA CITY	CFCYCAXF	0.82	0.0524	4.0961	99.9%	0.46	1.19	2162	-11.76	-0.2194	17.0%	2245	2080	58.28	0.1778	0.1612	12.6%	57.03	59.52	3.58	0.0238	0.2920	22.5%	3.41	3.74

Table 4F-8(a) (continued)

Wire Center Name	CLLI	Mean Val	Coef	OOS Ratio (actual) t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Average Duration (adjusted) Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Sorted by Coefficient Of Pct Cleared within 24 hours Pct cleared within 24 hrs (actual) Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Days to Clear 90% (actual) Coef	t-stat	Conf.	2Q16 Val	4Q19 Val
SIERRA MADRE/PASADENA	SRMDCAXF	0.75	0.0195	0.9342	63.3%	0.61	0.89	2612	33.18	0.3907	29.8%	2380	2844	48.12	0.1982	0.1631	12.7%	46.73	49.50	3.98	0.0642	0.5598	41.5%	3.53	4.43
BIG BEAR LAKE	BBLKCAXF	0.52	0.0280	2.6414	98.0%	0.33	0.72	2919	75.26	0.5303	39.5%	2392	3445	52.34	0.2254	0.1418	11.1%	50.76	53.92	4.08	0.1451	0.7759	54.8%	3.06	5.09
POINT MUGU	MUGUCAXF	0.55	0.0303	1.9345	92.5%	0.34	0.76	4147	25.15	0.1400	10.9%	3971	4323	39.20	0.2463	0.2173	16.9%	37.48	40.93	4.83	0.1918	1.1658	73.5%	3.49	6.18
GLENNVILLE	GLVLCAXF	1.79	0.0808	1.6295	87.3%	1.23	2.36	5969	161.68	0.8435	58.6%	4837	7101	9.72	0.2624	0.4618	34.8%	7.88	11.56	8.58	0.2947	1.0363	68.1%	6.51	10.64
BIG PINE	BGPICAXF	0.75	0.0167	0.7266	52.0%	0.63	0.87	3156	295.25	1.9652	92.9%	1089	5222	35.70	0.3342	0.1941	15.1%	33.36	38.04	3.85	0.3770	2.2758	96.0%	1.21	6.49
GARBERVILLE	GRVLCAXF	1.54	0.0329	0.9861	65.8%	1.31	1.77	4262	152.88	0.9016	61.6%	3192	5332	35.70	0.4019	0.3835	29.2%	32.89	38.52	6.62	0.2967	1.1423	72.6%	4.54	8.69
PLAYA DEL REY	PDRYCAXF	0.71	0.0090	0.5756	42.5%	0.65	0.77	2882	44.90	0.4847	36.4%	2568	3196	49.50	0.4472	0.3630	27.8%	46.37	52.63	4.15	0.0994	0.6544	47.6%	3.46	4.85
SEAL BEACH (ALAMITOS)	SLBHCAXF	0.48	0.0142	1.1069	71.2%	0.38	0.58	2612	-46.20	-0.5940	43.7%	2935	2288	51.06	0.4701	0.4442	33.6%	47.77	54.35	3.74	-0.0557	-0.5278	39.3%	4.13	3.35
NORWALK/NORWALK ALONDRA/ARTNRWLCAXF	KNWDCAXF	0.54	0.0049	0.3511	26.9%	0.50	0.57	2805	-10.15	-0.0883	6.9%	2876	2734	51.19	0.4772	0.3840	29.3%	47.85	54.53	4.11	-0.0136	-0.0939	7.3%	4.21	4.02
KENWOOD	RNBGCAXF	1.25	0.0337	0.6178	45.3%	1.02	1.49	6859	22.66	0.0954	7.5%	6701	7018	14.41	0.4804	0.7630	54.1%	11.04	17.77	16.00	-0.0063	-0.0059	0.5%	16.04	15.95
RANDSBURG	CRCRCAXF	0.86	0.0168	0.2856	22.0%	0.75	0.98	3805	174.63	0.7526	53.5%	2582	5027	7.62	0.5102	0.4716	35.5%	4.05	11.19	3.61	0.0824	0.3787	28.9%	3.03	4.19
CORCORAN	WMNSCAXF	1.49	0.0659	2.2041	95.4%	1.03	1.96	3665	69.53	0.8157	57.1%	3179	4152	30.01	0.5365	0.8132	56.9%	26.26	33.77	5.63	0.1588	1.0866	70.3%	4.52	6.74
WESTMINSTER	HRBHCAXA	0.64	0.0224	1.2145	75.4%	0.48	0.79	3041	48.51	0.3486	26.7%	2701	3380	47.68	0.5772	0.5028	37.6%	43.64	51.72	4.36	0.1059	0.6203	45.4%	3.62	5.11
HERMOSA BEACH/MANHATTAN BEA	CHSPCAXF	0.34	0.0043	0.5975	44.0%	0.31	0.37	2551	-22.62	-0.3071	23.6%	2709	2392	53.17	0.6125	0.5279	39.4%	48.88	57.45	3.66	-0.0575	-0.5988	44.0%	4.06	3.25
CALIFORNIA HOT SPRINGS	CHNOCAXF	1.94	0.1049	2.1166	94.6%	1.20	2.67	5434	58.49	0.4307	32.6%	5025	5844	21.42	0.6177	0.8179	57.2%	17.09	25.74	7.71	0.1794	0.8370	58.2%	6.45	8.97
CHINO/LOS SERRANOS	DSPLCAXF/	0.31	0.0089	1.9467	92.6%	0.25	0.37	2251	-87.81	-1.2168	75.5%	2866	1637	53.80	0.6852	0.6909	49.8%	49.00	58.59	3.36	-0.1220	-1.2187	75.5%	4.22	2.51
DOS PALOS/ORO LOMA	CLCYCAXG	1.33	0.0583	1.6862	88.4%	0.92	1.74	3386	-74.79	-0.7386	52.7%	3909	2862	36.47	0.7460	0.7794	55.0%	31.24	41.69	5.45	-0.2096	-1.3634	80.4%	6.92	3.99
SANTA MONICA/SANTA MONICA OC	SNMNCAXC	0.55	0.0082	0.5965	43.9%	0.50	0.61	2558	-56.87	-0.7885	55.5%	2956	2160	49.95	0.7576	0.6635	48.1%	44.64	55.25	3.63	-0.0269	-0.2455	19.0%	3.82	3.44
LOS ANGELES (MARS VISTA)	CLCYCAXG	0.65	0.0203	0.9809	65.5%	0.51	0.79	2494	-62.20	-0.7200	51.6%	2929	2059	53.00	0.7955	0.5987	44.0%	47.43	58.57	3.60	-0.0237	-0.1945	15.1%	3.77	3.44
WEST LOS ANGELES/WEST LOS AN	CWLANCAXF	0.50	0.0086	0.6096	44.7%	0.44	0.56	2755	-46.73	-0.4412	33.4%	3082	2428	49.52	0.8777	0.7930	55.8%	43.37	55.66	4.09	-0.0710	-0.5339	39.8%	4.59	3.59
LONG BEACH STADIUM (LAKEWOOD	LNBHCAXS	0.47	0.0230	1.4309	82.4%	0.31	0.63	2615	-34.58	-0.2724	21.0%	2857	2373	55.90	0.8780	0.6203	45.4%	49.76	62.05	3.61	-0.0270	-0.1786	13.9%	3.80	3.43
DOWNEY/DOWNEY IMPERIAL/BELL (	DWNYCAXF	0.83	0.0151	0.6207	45.5%	0.72	0.94	2806	-15.56	-0.1318	10.3%	2915	2697	49.02	0.9319	0.7551	53.6%	42.50	55.54	4.01	0.0081	0.0530	4.1%	3.96	4.07
LONE PINE	LNPNCAXF	0.99	0.0315	0.8846	60.8%	0.77	1.21	4386	269.38	1.4993	84.2%	2500	6271	22.97	1.0038	0.9733	65.2%	15.95	30.00	6.51	0.4342	1.6897	88.5%	3.47	9.55
LONG BEACH	LNBHCAXF/	0.51	0.0137	0.9792	65.5%	0.41	0.60	2612	-11.71	-0.1249	9.7%	2694	2530	53.74	1.0218	0.8721	60.1%	46.59	60.90	3.73	-0.0129	-0.0993	7.8%	3.82	3.64
SAN JOAQUIN/TRANQUILLITY	SNJQCAXF/	1.13	0.0036	0.1040	8.1%	1.10	1.15	3650	32.71	0.4214	32.0%	3421	3879	31.29	1.2545	1.0909	70.5%	22.50	40.07	5.61	0.0031	0.0351	2.7%	5.59	5.63
BIG BEAR CITY	BBCYCAXF	0.66	0.0239	1.5425	85.3%	0.49	0.82	2599	-28.35	-0.2481	19.2%	2798	2401	51.04	1.3213	1.0137	67.1%	41.79	60.29	3.59	-0.0642	-0.4560	34.4%	4.04	3.14
PIERCY	PIRCCAXF	1.76	0.1338	1.2948	78.2%	0.82	2.70	3813	128.20	0.5178	38.7%	2915	4710	45.85	1.3730	0.4940	37.0%	36.24	55.46	4.00	-0.0125	-0.0544	4.3%	4.08	3.91
LINDEN	LNDNCAXF	1.30	-0.0309	-0.9349	63.3%	1.52	1.08	3044	-142.85	-2.5653	97.7%	4044	2044	38.47	1.9742	1.9720	93.0%	24.65	52.29	3.85	-0.1399	-2.1404	94.8%	4.83	2.87
DESERT CENTER	DSCTCAXG	6.39	0.9389	3.3437	99.5%	-0.18	12.97	3776	17.63	0.1012	7.9%	3653	3899	32.74	2.0833	1.2125	75.3%	18.16	47.32	6.56	0.2736	0.7222	51.7%	4.64	8.47
SAN MIGUEL	SNMGCAXF	0.42	0.0289	1.9598	92.8%	0.22	0.63	7561	-219.41	-0.2922	22.5%	9097	6025	39.69	2.2119	1.7472	89.6%	24.21	55.18	13.53	-0.3590	-0.2364	18.3%	16.04	11.01
ELLWOOD (GAVIOTA)	ELWDCAXF	1.16	-0.0321	-0.7996	56.2%	1.39	0.94	5046	46.75	0.1854	14.4%	4719	5373	28.91	2.2383	1.7391	89.4%	13.24	44.57	7.63	-0.0403	-0.1414	11.0%	7.92	7.35
CANTUA CREEK	CNCKCAXF	1.66	0.0975	1.8679	91.6%	0.98	2.34	4555	41.90	0.2140	16.6%	4262	4848	20.31	2.2849	1.9064	92.1%	4.32	36.30	6.49	0.2226	0.6348	46.3%	4.93	8.05
SNELLING	SNNGCAXG	2.52	0.0651	0.7198	51.6%	2.06	2.98	4676	-145.17	-1.3162	78.9%	5692	3660	21.94	2.6256	1.8070	90.6%	3.56	40.32	5.48	-0.2949	-2.9097	98.8%	7.54	3.42
CLEMENTS	CLEMCAXF	1.81	0.0074	0.1037	8.1%	1.76	1.87	2786	-120.20	-2.1492	94.9%	3628	1945	45.24	3.6353	3.0075	99.0%	19.79	70.68	5.11	-0.0385	-0.2343	18.2%	5.38	4.84
LANCASTER ANTELOPE (HI VISTA)	LNCSCAXF	1.03	0.0475	0.7838	55.3%	0.70	1.37	1755	-83.90	-0.6797	49.1%	2342	1168	40.78	5.2381	2.5204	97.4%	4.11	77.44	2.13	0.0367	0.1831	14.2%	1.88	2.39

Table 4F.8(b)

FRONTIER CALIFORNIA
WIRE CENTER PERFORMANCE TRENDS
OVER THE PERIOD 4Q2017-4Q2019

Sorted by Coefficient Of Pct Cleared within 24 hours

Wire Center Name	CLLI	OOS Ratio (actual) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Average Duration (adjusted) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Pct cleared within 24 hrs (actual) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Days to Clear 90% (actual) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val
INDEPENDENCE	INDPCAXF	0.91	0.0477	0.5689	41.3%	0.43	1.10	8204	1435.83	1.2409	74.5%	-6155	13947	46.03	-14.5238	-5.0476	99.9%	191.27	-12.06	15.37	1.6824	0.4607	34.1%	-1.45	22.10
MCKITTRICK	MCKTCAXF	1.54	0.0431	0.3400	25.6%	1.11	1.71	4360	469.45	0.7004	49.4%	-334	6238	43.83	-12.5617	-3.3765	98.8%	169.44	-6.42	5.96	0.9253	1.0969	69.1%	-3.29	9.66
BRSW YERM/YERMO	YERMCAXF	1.77	0.0775	0.5838	42.2%	1.00	2.08	3836	796.03	2.7113	97.0%	-4124	7020	41.07	-11.8504	-8.5762	100.0%	159.57	-6.33	5.29	0.9407	2.3616	95.0%	-4.12	9.05
IDYLLWILD	IDYLCAXF	1.02	0.0527	1.4156	80.0%	0.49	1.23	3618	675.88	3.5089	99.0%	-3141	6322	44.56	-11.5215	-4.2019	99.6%	159.78	-1.53	5.02	0.8912	3.0877	98.2%	-3.90	8.58
PINYON	PNYNCAXF	1.81	0.1317	0.6400	45.7%	0.49	2.34	3479	453.89	1.7489	87.6%	-1060	5295	37.31	-10.4646	-4.5397	99.7%	141.95	-4.55	4.51	0.4537	1.4493	80.9%	-0.03	6.32
SQUAW VALLEY	SVYFCAXF	3.01	0.1047	0.3336	25.2%	1.96	3.43	4324	896.88	1.6248	85.2%	-4645	7912	35.35	-10.3282	-3.1561	98.4%	138.63	-5.96	6.12	1.2713	1.5408	83.3%	-6.59	11.21
MORONGO VALLEY	MRVYCAXF	2.24	0.3284	2.7638	97.2%	-1.04	3.56	5068	1379.84	4.0109	99.5%	-8730	10588	46.42	-9.9331	-4.3218	99.7%	145.75	6.69	7.34	2.0611	4.6500	99.8%	-13.27	15.59
YUCCA VALLEY	YCVYCAXG	0.95	0.0799	2.4591	95.6%	0.15	1.27	4386	937.57	2.5438	96.2%	-4989	8137	45.17	-9.7986	-4.5713	99.7%	143.15	5.97	6.48	1.4040	2.6856	96.9%	-7.56	12.10
NEWBERRY SPRINGS	NWBRCAXF	3.15	0.0686	0.4313	32.1%	2.46	3.42	4511	699.48	2.1258	92.9%	-2484	7309	37.04	-9.5896	-6.0814	99.9%	132.94	-1.32	7.85	0.6158	0.9896	64.5%	1.69	10.32
TWENTYNINE PALMS/MARINE BASE/	TWPLCAXF/	1.55	0.2834	4.4770	99.7%	-1.29	2.68	4021	750.77	2.3375	94.8%	-3487	7024	45.04	-9.5692	-4.7505	99.8%	140.73	6.76	5.99	1.0728	2.4930	95.9%	-4.74	10.28
SALTON CITY	SLCYCAXF	6.81	1.1263	3.8108	99.3%	-4.46	11.31	3304	658.35	3.5262	99.0%	-3280	5937	42.29	-9.3120	-4.0576	99.5%	135.41	5.04	4.14	0.7941	4.6432	99.8%	-3.80	7.32
REDONDO BEACH	RDBHCAXF	0.32	0.0055	0.2725	20.7%	0.26	0.34	1906	261.49	2.3440	94.8%	-709	2952	52.64	-9.1872	-4.0586	99.5%	144.51	15.89	2.73	0.3689	2.1895	93.5%	-0.96	4.21
MIRANTPHST	MRMNCASF	4.94	0.5043	1.5142	82.6%	-0.10	6.96	6737	1372.53	2.7991	97.3%	-6988	12227	28.12	-9.1320	-4.9325	99.8%	119.44	-8.41	10.40	1.8508	2.4974	95.9%	-8.11	17.81
APPLE VALLEY/DESERT KNOLLS	APVYCAXF/	0.73	0.0479	1.7350	87.4%	0.25	0.92	3378	512.90	1.9711	91.1%	-1752	5429	44.98	-9.0367	-7.1570	100.0%	135.35	8.83	4.98	0.8050	2.2017	93.6%	-3.07	8.20
JOSHUA TREE	JSTRCAXF	0.89	0.0590	2.5491	96.2%	0.30	1.13	4578	974.90	2.5405	96.1%	-5171	8478	42.35	-9.0292	-3.5188	99.0%	132.65	6.24	6.14	1.4648	3.9023	99.4%	-8.50	12.00
MURRIETA	MURTCAXF	0.29	0.0219	3.8181	99.3%	0.07	0.38	2743	461.11	3.2501	98.6%	-1868	4587	53.78	-9.0177	-4.5392	99.7%	143.96	17.71	3.41	0.5958	4.6801	99.8%	-2.55	5.79
PHELAN	PHLNCAXF	0.97	0.0572	2.1616	93.3%	0.40	1.20	3635	639.63	2.5309	96.1%	-2761	6194	45.56	-8.9787	-5.0397	99.9%	135.35	9.65	5.68	0.9784	2.7792	97.3%	-4.11	9.59
EL MIRAGE	ELMGCAXF	1.30	-0.0241	-0.2309	17.6%	1.54	1.21	5649	729.90	1.6323	85.3%	-1650	8569	27.33	-8.9484	-3.2803	98.7%	116.81	-8.47	9.41	0.1140	0.0752	5.8%	8.27	9.87
GILROY	GLRYCAXF	0.70	0.0229	1.0343	66.5%	0.47	0.79	4762	906.77	2.4998	95.9%	-4305	8390	36.55	-8.8726	-4.1780	99.6%	125.28	1.06	6.19	1.0032	2.3954	95.2%	-3.84	10.20
LENWOOD	LNWDCAXF	1.32	0.0843	0.8572	58.0%	0.48	1.66	3517	602.14	1.5736	84.0%	-2504	5926	48.84	-8.8086	-3.7105	99.2%	136.93	13.60	5.68	1.0355	1.6183	85.0%	-4.67	9.82
BARSTOW/BARSTOW SOUTH	BRSWCAXF	0.87	0.0587	1.5016	82.3%	0.28	1.10	3471	635.21	2.3464	94.9%	-2881	6012	47.96	-8.7688	-4.8888	99.8%	135.65	12.88	5.33	0.9344	2.4637	95.7%	-4.02	9.06
UPLAND	UPLDCAXF	0.47	0.0078	0.3952	29.6%	0.39	0.50	2524	443.21	3.6363	99.2%	-1908	4297	51.93	-8.5305	-4.5707	99.7%	137.24	17.81	3.53	0.6287	4.3913	99.7%	-2.76	6.04
SAN JACINTO	SNJCCAXG	0.71	0.0270	1.3295	77.5%	0.44	0.82	3614	631.74	2.6570	96.7%	-2704	6141	47.60	-8.5162	-3.9614	99.5%	132.77	13.54	4.42	0.8430	2.5345	96.1%	-4.01	7.79
TEMECULA/RANCHO CALIFORNIA/TE	TMCLCAXG	0.45	0.0144	1.6675	86.1%	0.31	0.51	2867	417.76	2.1311	92.9%	-1310	4538	48.28	-8.4663	-3.7098	99.2%	132.95	14.42	3.30	0.4646	2.7973	97.3%	-1.35	5.16
REEDLEY	RDLYCAXF	1.26	0.0487	1.7083	86.9%	0.77	1.45	3152	550.61	2.5813	96.4%	-2354	5354	44.65	-8.4637	-4.7550	99.8%	129.28	10.79	4.25	0.6063	1.9811	91.2%	-1.81	6.68
ETIWANDA	ETWNCAXF	0.53	0.0315	2.0496	92.0%	0.22	0.66	2819	576.32	4.3276	99.7%	-2944	5125	47.75	-8.2635	-3.1479	98.4%	130.38	14.70	4.54	1.3982	3.2370	98.6%	-9.45	10.13
ONTARIO/ONTARIO SOUTH/ONTARI(	ONTRCAX/(	0.34	0.0151	1.0181	65.7%	0.19	0.40	2427	311.18	2.2740	94.3%	-684	3672	50.74	-8.2605	-4.6459	99.8%	133.34	17.70	3.30	0.3789	2.1870	93.5%	-0.49	4.82
PALM DESERT/THOUSAND PALMS/B	PLDSCAXF/	0.98	0.0377	1.4465	80.9%	0.60	1.13	3553	455.64	2.9813	98.0%	-1004	5375	45.12	-8.2379	-5.2985	99.9%	127.50	12.17	4.37	0.5752	2.9604	97.9%	-1.38	6.67
CUCAMONGA (SAGE)	CCMNCAXF	3.57	0.3097	2.9680	97.9%	0.47	4.81	3628	475.24	3.3319	98.7%	-1124	5529	44.90	-8.1428	-3.5230	99.0%	126.33	12.33	4.81	0.6669	2.7434	97.1%	-1.86	7.48
SUN CITY/QUAIL VALLEY	SNCYCAXF/	0.53	0.0324	1.6736	86.2%	0.21	0.66	2674	445.88	2.8119	97.4%	-1785	4458	52.39	-8.1070	-3.3789	98.8%	133.46	19.97	3.11	0.4745	2.7024	96.9%	-1.64	5.00
MORGAN HILL	MRHLCAXF	0.62	0.0146	0.7488	52.2%	0.48	0.68	4821	935.88	2.3358	94.8%	-4537	8565	35.48	-8.0683	-3.8309	99.4%	116.16	3.21	5.91	0.8809	2.1205	92.8%	-2.90	9.43
PERRIS(LAKEVIEWNU)	PERSCAXF	1.43	0.0691	1.1118	69.7%	0.74	1.71	3472	657.66	3.3871	98.8%	-3105	6103	47.03	-8.0406	-7.0451	100.0%	127.43	14.87	4.49	0.8208	3.1284	98.3%	-3.72	7.77
INDIO/LA QUINTA/MECCA/NORTH SH	INDICAXG/L	1.55	0.0630	1.5703	84.0%	0.92	1.80	3217	392.46	2.8251	97.4%	-708	4787	45.65	-8.0152	-5.3620	99.9%	125.80	13.59	4.38	0.6472	4.2190	99.6%	-2.09	6.97
HEMET/VALLE VISTA	HEMTCAXF/	0.61	0.0280	1.5980	84.6%	0.33	0.72	3635	779.32	2.5279	96.1%	-4158	6752	49.62	-7.9781	-3.5198	99.0%	129.40	17.71	5.42	1.1749	2.3561	94.9%	-6.33	10.12
LOS GATOS	LSGTCAXA/	1.03	0.0380	0.8643	58.4%	0.65	1.18	4958	813.19	2.1592	93.2%	-3174	8211	34.88	-7.9365	-3.9768	99.5%	114.25	3.14	6.65	1.0532	2.8436	97.5%	-3.89	10.86
PIERCY	PIRCCAXF	1.80	0.5636	2.3518	94.9%	-3.84	4.05	3333	804.24	1.3706	78.7%	-4710	6549	61.23	-7.9259	-1.3628	78.5%	140.49	29.53	2.98	0.7934	1.6889	86.5%	-4.96	6.15
DESERT HOT SPRINGS	DHSPCAXF	2.32	0.1165	2.0021	91.5%	1.15	2.79	3499	383.61	1.9205	90.4%	-337	5034	40.97	-7.9176	-5.0240	99.8%	120.15	9.30	4.49	0.5853	1.8099	88.7%	-1.36	6.83
SANGER	SNGRCAXF	1.41	0.1123	2.3235	94.7%	0.29	1.86	4056	789.23	3.1265	98.3%	-3837	7212	38.96	-7.8869	-4.0365	99.5%	117.83	7.41	5.18	0.9529	3.7777	99.3%	-4.35	8.99
SEA RANCH	SERNCAXG	1.22	0.0294	0.5172	37.9%	0.92	1.34	5234	1100.63	2.2062	93.7%	-5773	9636	42.74	-7.8738	-4.0149	99.5%	121.48	11.24	7.02	1.1138	1.6320	85.3%	-4.12	11.48
LUCERNE VALLEY	LCVYCAXF	2.11	0.2393	2.5465	96.2%	-0.28	3.07	3395	499.72	1.6529	85.8%	-1602	5394	41.92	-7.8228	-4.1892	99.6%	120.15	10.63	4.77	0.6574	2.0411	91.9%	-1.80	7.40
TAFT/FELLOWS/MARICOPA	TAFTCAXF/I	0.78	0.0365	0.8776	59.1%	0.41	0.92	3061	360.38	2.5369	96.1%	-542	4503	48.46	-7.7590	-4.4393	99.7%	126.05	17.42	3.94	0.6327	2.6746	96.8%	-2.38	6.47
PALM SPRINGS/RANCHO MIRAGE	PLSPCAXG/	1.28	0.0318	0.7741	53.6%	0.96	1.40	4150	631.92	1.9235	90.4%	-2169	6678	44.63	-7.7285	-4.4540	99.7%	121.92	13.72	4.95	0.7381	2.2207	93.8%	-2.43	7.91
LOMPOC/VANDENBERG AFB	LMPCCAXF/	0.57	0.0212	1.0317	66.3%	0.35	0.65	4955	975.74	2.4383	95.5%	-4803	8858	41.04	-7.6804	-4.3613	99.7%	117.85	10.32	6.14	0.8131	1.3251	77.3%	-1.99	9.39
HOMESTEAD VALLEY	HMVYCAXF	1.69	0.1660	1.5397	83.2%	0.03	2.35	4124	749.78	2.3374	94.8%	-3374	7123	41.22	-7.5405	-3.5852	99.1%	116.62	11.06	5.81	1.1130	2.2304	93.9%	-5.32	10.26
DUNLAP	DNLPCAXF	6.03	0.1492	0.4810	35.5%	4.54	6.62	5178	569.25	0.9983	64.9%	-515	7455	40.79	-7.5292	-2.4682	95.7%	116.08	10.67	7.36	1.3649	1.6914	86.5%	-6.29	12.82
WRIGHTWOOD	WRWDCAXI	0.86	0.0458	1.1443	71.0%	0.40	1.04	3899	687.39	1.9789	91.2%	-2975	6648	41.31	-7.4761	-2.7661	97.2%	116.07	11.41	5.30	0.8966	2.3893	95.2%	-3.67	8.88
PERRIS	PERSCAXF	0.79	0.0694	1.9797	91.2%	0.09	1.06	3239	608.19	2.6724	96.8%	-2843	5672	47.63	-7.3039	-3.0316	98.1%	120.67	18.41	4.64	0.8418	2.1419	93.1%	-3.77	8.01
FORT IRWIN	FTIRCAXF	0.05	-0.0277	-2.8036	97.4%	0.33	-0.06	223	-125.35	-2.4081	95.3%	1476	-279	14.81	-7.2222	-1.9098	90.2%	87.04	-14.07	0.18	-0.1003	-2.5057	95.9%	1.18	-0.22
MORENO/EDGEMONT/SUNNYMEAD	LNCSCAXF/	0.34	0.0140	1.6975	86.7%	0.20	0.39	2762	506.99	2.6663	96.8%	-2308	4790	55.94	-7.2089	-3.1479	98.4%	128.02	27.10	3.80	0.6625	2.8843	97.6%	-2.83	6.45
HESPERIA	HSPRCAXF	0.78	0.0112	0.2375	18.1%	0.66	0.82	3426	581.11	2.1037	92.7%	-2385	5750	47.73	-7.1838	-3.9069	99.4%	119.57	19.00	5.19	0.8829	2.1622	93.3%	-3.64	8.72
CLAREMONT/LA VERNE/SAN DIMAS	CLMTCAXF/	0.48	0.0130	0.6307	45.2%	0.35	0.53	2439	304.97	3.1291	98.3%	-611	3659	49.72	-7.0712	-3.4078	98.9%	120.43	21.44	3.78	0.4554	3.2641	98.6%	-0.77	5.61
VICTORVILLE/HELENDALE-SILVER L	VTVLCAXA/	0.49	0.0310	2.3212	94.7%	0.18	0.61	3704	363.29	1.2099	73.4%	71	5157	44.19	-7.0047	-3.9941	99.5%	114.24	16.17	5.24	0.6781	1.6360	85.4%	-1.54	7.95
HOMELAND	HMLDCAXF	1.47	0.0768	1.0721	68.1%	0.70	1.78	2917	420.62	2.1608	93.2%	-1289	4600	49.76	-7.0039	-4.5852	99.7%	119.80	21.74	3.73	0.3064	1.4473	80.9%	0.66	4.95
FOWLER	FWLRCAXF	1.48	0.0988	1.8321	89.0%	0.49	1.87	2875	505.63	2.1533	93.2%	-2181	4898	48.90	-6.8855	-2.5485	96.2%	117.75	21.36	3.83	0.6342	2.3727	95.1%	-2.51	6.37
POMONA	POMNCAXF	0.51	0.0255	1.0797	68.4%	0.25	0.61	2246	260.43	2.2365	94.0%	-359	3287	53.32	-6.8792	-3.3480	98.8%	122.12	25.81	3.19	0.4496	3.1812	98.5%	-1.31	4.99
SUMMIT VLY	SMVYCAXF	2.75	0.0511	0.2382	18.1%	2.23	2.95	3282	351.38	1.5265	82.9%	-232	4688	30.53	-6.8571	-1.8943	90.0%	99.10	3.10	5.03	0.6487	1.1835	72.5%	-1.46	7.62
COLFAX	CLFXCAXF	1.27	0.1491	1.4291	80.4%	-0.23	1.86	2790	377.03	7.4258	100.0%	-981	4298	37.83	-6.8229	-4.4533	99.7%	106.06	10.54	4.07	0.4779	3.1019	98.3%	-0.71	5.99
NOVATO	NOVTCAXF	0.62	0.0580	2.1215	92.8%	0.04	0.86	3906	476.14	1.8049	88.6%	-855	5811	38.72	-6.7630	-4.2883	99.6%	106.35	11.67	5.61	0.7735	2.4044	95.3%	-2.13	8.70
INYOKERN	INYKCAXF	1.50	0.1169	1.2203	73.8%	0.33	1.96	4038	561.05	1.3228	77.3%	-1572	6282	50.51	-6.6842	-3.5593	99.1%	117.35	23.77	5.39	1.0239	1.8515	89.3%	-4.85	9.48
RUNNING SPRINGS	RNSPCAXF	1.12	0.0293	0.4066	30.4%	0.83	1.24	2833	370.74	1.8215	88.9%	-874	4316	54.29	-6.6463	-2.8296	97.5%	120.75	27.70	4.45	0.6444	2.0264	91.8%	-1.99	7.03
CAMARILLO	CMRLCAXF	0.27	0.0166	1.8344	89.1%	0.11	0.34	2942	269.70	0.9731	63.7%	245	4021	47.75	-6.6452	-3.0460	98.1%	114.20	21.17	4.19	0.4605	1.0099	65.4%	-0.41	6.04
LA HABRA/WHITTIER LA HABRA	LAHBCAXF/	0.79	0.0443	0.8998	60.2%	0.35	0.96	3064	417.71	1.3410	77.8%	-1113	4735	49.56	-6.6162	-3.1512	98.4%	115.72	23.10	4.57	0.6291	1.4836	81.9%	-1.72	7.09
BORON/NORTH EDWARDS	BORNCAXF	1.21	0.1244	1.9029	90.1%	-0.04	1.70	2536	367.82	1.9788	91.2%	-1142	4007	54.15	-6.5869	-2.9440	97.8%	120.02	27.80	3.98	0.5586	1.5367	83.2%	-1.60	6.22
MCFARLAND	MCFACAXF	1.31	0.0966	1.3524	78.2%	0.34	1.69	1915	227.67	2.9845	98.0%	-362	2826	57.26	-6.5153	-3.6770	99.2%	122.42	31.20	3.05	0.3268	1.9116	90.2%	-0.22	4.36
BIG BEAR LAKE	BBLKCAXF	0.59	0.0566	2.3031	94.5%	0.02	0.81	2905	464.28	1.3386	77.7%	-1738	4762	57.34	-6.4839	-2.2456	94.0%	122.18	31.40	4.19	0.6143	1.2800	75.9%	-1.95	6.65
LINDSAY/STRATHMORE	LNDSCAXF/	1.46	-0.0202	-0.3668	27.5%	1.66	1.37	2805	327.55	1.2481	74.8%	-470	4116	48.37	-6.4654	-2.5980	96.4%	113.03	22.51	4.04	0.3913	1.1457	71.0%	0.12	5.60
ARROWHEAD	ARHDCAXF	0.86	0.0532	1.6789	86.3%	0.33	1.07	3746	438.78	1.3007	76.5%	-642	5501	47.38	-6.4536	-2.7766	97.3%	111.91	21.56	5.50	0.7837	1.3673	78.6%	-2.34	8.63
KERNVILLE	KRVLCAXF	1.34	0.0608	0.8700	58.7%	0.74	1.59	4724	708.34	1.6071	84.8%	-2359	7558	36.71	-6.4295	-3.2078	98.5%	101.01	11.00	6.80	1.1250	2.0128	91.6%	-4.45	11.30
LANCASTER/QUARTZ HILL	LNCSCAXG	0.62	0.0622	4.1524	99.6%	0.00	0.87	3357	529.45	1.7490	87.6%	-1938	5474	49.69	-6.3917	-3.1151	98.3%	113.61	24.12	5.01	0.7605	1.7668	87.9%	-2.60	8.05
SAN BERNARDINO/SAN BERARDINO	SNBRCAXK	0.97	0.0374	0.9116	60.8%	0.60	1.12	3150	325.90	1.8458	89.3%	-109	4454	41.60	-6.3893	-4.1174	99.6%	105.49	16.04	4.65	0.5567	2.6482	96.7%	-0.92	6.88
MENTONE	MENTCAXF	0.77	0.0714	3.3211	98.7%	0.05	1.05	4549	683.64	2.2022	93.6%	-2287	7284	33.03	-6.3867	-3.7342	99.3%	96.89	7.48	6.45	1.0593	2.3100	94.6%	-4.14	10.69
REDLANDS/LOMA LINDA	RDLDCAXF/	0.48	0.0281	2.0041	91.5%	0.20	0.60	3073	314.52	1.4900	82.0%	-72	4331	47.11	-6.3288	-3.6846	99.2%	110.40	21.79	4.46	0.3352	1.1201	70.0%	1.10	5.80
CALIMESA/YUCAIPA	CLMSCAXF/	0.90	0.0141	0.4663	34.5%	0.76	0.95	3928	380.34	1.5637	83.8%	124	5449	37.10	-6.3213	-4.1110	99.5%	100.32	11.82	5.84	0.8148	2.4461	95.6%	-2.30	9.10

ECONOMICS AND TECHNOLOGY, INC.

Table 4F-8(b) (continued)

Sorted by Coefficient Of Pct Cleared within 24 hours

		OOS Ratio (actual)						Average Duration (adjusted)						Pct cleared within 24 hrs (actual)						Days to Clear 90% (actual)					
Wire Center Name	CLLI	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val
BANNING/BEAUMONT	BNNGCAXF	0.68	0.0606	3.3119	98.7%	0.08	0.92	3458	327.66	1.1976	73.0%	182	4769	42.74	-6.2332	-3.2325	98.6%	105.07	17.81	5.00	0.5637	1.4025	79.6%	-0.63	7.26
ADELANTO	ADLNCAXF	0.60	0.0556	1.7542	87.7%	0.04	0.82	3417	421.66	1.4571	81.2%	-800	5103	47.01	-6.0355	-3.0426	98.1%	107.36	22.87	4.48	0.4278	1.1925	72.8%	0.20	6.19
MANTECA/LATHROP	MNTCCAXG	0.66	0.0108	0.4815	35.5%	0.55	0.70	2989	286.60	1.5599	83.7%	123	4136	48.55	-6.0060	-2.9326	97.8%	108.61	24.53	4.60	0.4383	1.3530	78.2%	0.22	6.35
SANTA MARIA/ORCUTT	SNTMCAXF	0.34	0.0146	1.2825	75.9%	0.20	0.40	6271	1058.57	1.3281	77.4%	-4314	10506	43.11	-5.9663	-3.6004	99.1%	102.78	19.25	5.89	0.7932	1.3002	76.5%	-2.04	9.06
GRANADA HILLS	GRHLCAXF	0.61	0.0287	1.9235	90.4%	0.32	0.72	3323	416.03	1.2920	76.3%	-838	4987	47.12	-5.9253	-2.6311	96.6%	106.38	23.42	3.95	0.4795	1.2060	73.3%	-0.85	5.86
RIPON	RIPNCAXF	0.77	0.0490	1.2729	75.6%	0.28	0.97	3130	494.49	2.6046	96.5%	-1815	5107	47.33	-5.9206	-3.6475	99.2%	106.54	23.65	5.04	0.8217	2.9815	98.0%	-3.18	8.33
BISHOP	BSHPCAXG	0.59	0.0038	0.1030	7.9%	0.55	0.60	3907	498.76	2.0401	91.9%	-1080	5902	43.50	-5.8995	-2.5896	96.4%	102.49	19.90	5.21	0.7832	2.3340	94.8%	-2.63	8.34
SYLMAR	SYLMCAXF	0.55	0.0292	0.9087	60.6%	0.26	0.67	3287	375.11	1.0995	69.2%	-464	4788	47.97	-5.8857	-2.7041	97.0%	106.82	24.42	4.51	0.4293	1.0610	67.6%	0.22	6.23
PICO RIVERA	PCRVCAXF	0.75	0.0301	0.6381	45.6%	0.45	0.87	2791	373.54	1.4438	80.8%	-945	4285	49.76	-5.8611	-2.8025	97.4%	108.37	26.32	3.83	0.5101	1.6653	86.0%	-1.27	5.87
FARMERSVILLE	FRVLCAXF	1.55	0.0527	0.6908	48.8%	1.03	1.76	2949	271.64	1.4971	82.2%	233	4036	42.19	-5.8021	-3.1744	98.4%	100.21	18.98	4.46	0.5468	2.0523	92.1%	-1.01	6.65
SAN FERNANDO (SNFN SNFN)	SNFNCAXG	0.58	0.0188	0.4063	30.3%	0.39	0.65	3089	355.73	1.3663	78.6%	-468	4512	47.81	-5.7602	-2.4160	95.4%	105.41	24.77	4.38	0.4665	1.3826	79.1%	-0.28	6.25
RIDGECREST	RDGCCAXG	1.13	0.0388	0.7938	54.7%	0.74	1.28	4028	438.32	1.0551	67.4%	-355	5781	43.78	-5.7596	-2.7103	97.0%	101.37	20.74	5.96	0.5331	0.9916	64.6%	0.63	8.09
SEPULVEDA	SPLVCAXF	0.57	0.0457	1.9853	91.3%	0.11	0.75	2975	404.89	1.3556	78.3%	-1074	4594	48.78	-5.7149	-2.6539	96.7%	105.93	25.92	4.30	0.6240	1.7587	87.8%	-1.94	6.80
CROWLEY LAKE	CRLKCAXF	0.56	-0.0033	-0.0680	5.2%	0.60	0.55	3243	254.19	0.7212	50.6%	701	4260	44.14	-5.7037	-1.0085	65.3%	101.17	21.32	3.67	0.3838	0.8956	60.0%	-0.17	5.20
ELSINORE GRANDE/ELSINORE MAIN	ELSNCAXG/	0.50	0.0643	3.4846	99.0%	-0.14	0.76	2587	274.36	2.0353	91.9%	-156	3685	51.36	-5.5736	-2.7430	97.1%	107.09	29.06	3.58	0.2871	1.5648	83.8%	0.71	4.73
LEE VINING	LVNGCAXF	0.78	0.0585	0.8388	57.1%	0.20	1.02	5230	847.78	1.9324	90.5%	-3248	8621	33.33	-5.5556	-1.3066	76.7%	88.89	11.11	7.64	0.8425	1.0038	65.1%	-0.78	11.02
LOS ALAMOS	LSALCAXF	0.52	-0.0172	-0.8035	55.2%	0.69	0.45	3905	601.16	1.5972	84.6%	-2106	6310	34.84	-5.5376	-1.9283	90.5%	90.21	12.69	5.01	0.5065	1.1668	71.9%	-0.05	7.04
WHITTIER/WHITTIER TELEGRAPH	WHTRCAXF	0.46	0.0194	0.8060	55.3%	0.26	0.53	2582	281.52	1.4025	79.6%	-233	3708	51.38	-5.5280	-3.1238	98.3%	106.66	29.27	3.80	0.3504	1.3037	76.6%	0.29	5.20
ORLEANS	ORLNCAXF	0.82	0.1149	2.0234	91.7%	-0.33	1.28	3702	458.77	2.1847	93.5%	-886	5537	25.56	-5.5000	-2.5478	96.2%	80.56	3.56	4.45	0.3255	2.1631	93.3%	1.20	5.75
CRESTLINE	CRLNCAXF	1.34	0.1611	2.9884	98.0%	-0.27	1.98	3659	567.69	1.8096	88.7%	-2018	5930	45.22	-5.4992	-3.6552	99.2%	100.22	23.23	5.65	0.9081	1.8946	90.0%	-3.43	9.28
AZUSA/GLENDORA	AZUSCAXF/	0.72	0.0166	0.5176	37.9%	0.56	0.79	2692	240.92	1.1233	70.2%	283	3656	50.36	-5.4610	-2.5820	96.4%	104.97	28.52	4.05	0.3716	1.4818	81.8%	0.34	5.54
DIAMOND BAR	DMBRCAXF	0.31	0.0296	2.5425	96.1%	0.01	0.43	2565	226.89	1.8295	89.0%	296	3473	48.79	-5.4238	-3.3469	98.8%	103.03	27.10	3.66	0.3046	2.0178	91.7%	0.61	4.88
GUADALUPE	GDLPCAXG	0.36	-0.0319	-1.6120	84.9%	0.68	0.23	3627	155.65	0.4860	35.8%	2071	4250	40.90	-5.3619	-2.5927	96.4%	94.52	19.46	6.47	-0.0544	-0.0636	4.9%	7.01	6.25
OXNARD/OXNARD W WOOLEY	OXNRCAXF	0.43	0.0100	0.8730	58.8%	0.33	0.47	3329	310.98	0.9753	63.8%	219	4573	46.26	-5.3618	-2.8158	97.4%	99.88	24.81	4.81	0.5516	1.1055	69.5%	-0.70	7.02
MALIBU	MALBCAXG	0.46	0.0359	1.0159	65.7%	0.10	0.60	7256	1256.28	1.5524	83.5%	-5306	12282	38.98	-5.2960	-2.8766	97.6%	91.94	17.79	13.02	1.9411	1.3008	76.5%	-6.39	20.78
THOUSAND OAKS	THOKCAXF	0.29	-0.0043	-0.3471	26.1%	0.33	0.27	3916	443.18	1.2667	75.4%	-516	5689	48.88	-5.2911	-1.9544	90.8%	101.79	27.71	5.27	0.5450	1.3711	78.7%	-0.18	7.45
ANZA	ANZACAXF	2.69	0.4680	2.6621	96.8%	-1.99	4.56	4701	565.05	1.9041	90.1%	-950	6961	37.66	-5.2498	-2.0262	91.8%	90.16	16.66	6.54	0.8898	1.9324	90.5%	-2.36	10.10
MAD RIVER	MDRVCAXF	2.01	0.3200	1.7664	87.9%	-1.19	3.29	7184	1180.02	2.2161	93.8%	-4617	11904	14.85	-5.2427	-2.7924	97.3%	67.27	-6.12	8.93	0.9121	1.1415	70.9%	-0.19	12.58
TIVY VALLEY	TVVYCAXF	3.22	0.0724	0.3769	28.3%	2.50	3.51	3421	571.80	2.0562	92.1%	-2297	5708	48.88	-5.2321	-2.0044	91.5%	101.20	27.95	5.48	1.0630	3.3846	98.8%	-5.15	9.73
MARSHALL/MUSCOY	SNBRCAXH	1.04	0.0383	0.5650	41.0%	0.66	1.19	3509	278.61	1.6902	86.5%	723	4623	38.84	-5.2295	-3.1161	98.3%	91.14	17.92	5.13	0.4461	2.0433	92.0%	0.67	6.91
DESERT SHORES	DSSHCAXF	4.00	1.1180	3.4567	98.9%	-7.17	8.48	2481	315.25	1.5726	84.0%	-672	3742	37.01	-5.1622	-1.3048	76.7%	88.64	16.37	3.56	0.5591	1.9273	90.5%	-2.03	5.80
KNIGHTS LANDING	KNLDCAXF	1.54	0.1501	1.5809	84.2%	0.04	2.14	2980	539.02	2.7469	97.1%	-2410	5136	28.89	-5.1104	-1.9275	90.5%	80.00	8.45	4.68	1.0510	2.5109	96.0%	-5.83	8.89
SOLVANG (SANTA YNEZ)	SLVNCAXG	0.86	0.0638	1.2368	74.4%	0.23	1.12	4458	408.59	0.9134	60.9%	372	6092	30.66	-5.0879	-2.5030	95.9%	81.54	10.31	6.92	0.5963	0.7609	52.8%	0.95	9.30
CAZADERO	CZDRCAXG	1.76	0.1485	1.3868	79.2%	0.28	2.36	4748	827.71	1.4166	80.0%	-3529	8059	38.74	-5.0436	-1.8054	88.6%	89.18	18.57	6.17	0.9486	1.3214	77.2%	-3.31	9.97
CALIFORNIA CITY	CFCYCAXF	0.94	0.1089	4.8473	99.8%	-0.15	1.38	2011	232.66	3.4592	98.9%	-316	2942	61.06	-5.0405	-3.2986	98.7%	111.47	40.90	3.36	0.4347	3.5117	99.0%	-0.99	5.10
TIMBER COVE	TMCVCAXH	1.35	0.1000	0.9065	60.5%	0.35	1.75	4303	487.25	1.0476	67.0%	-570	6252	37.49	-5.0175	-1.9275	90.5%	87.66	17.42	6.24	0.6969	1.0493	67.1%	-0.73	9.03
PINE CREEK	PNCKCAXF	0.80	-0.0361	-0.5104	37.5%	1.16	0.65	4905	664.60	0.9633	63.3%	-1741	7564	28.15	-5.0000	-1.7482	87.6%	78.15	8.15	5.21	0.4184	0.7306	51.1%	1.02	6.88
SANTA PAULA	SNPLCAXF	1.12	0.0730	0.7968	54.8%	0.39	1.41	7086	-870.82	-1.0538	67.3%	15794	3603	36.55	-4.9833	-2.4593	95.6%	86.39	16.62	14.45	-2.7728	-1.3103	76.9%	42.18	3.36
LEMON COVE	LMCVCAXF	0.87	-0.0700	-0.5828	42.2%	1.57	0.59	3955	474.88	0.6596	46.9%	-794	5855	19.26	-4.9444	-1.5988	84.6%	68.70	-0.52	4.58	0.5045	0.6376	45.6%	-0.46	6.60
BEL AIR (SOMIS)	BELRCAXF	1.02	0.0651	1.2478	74.8%	0.37	1.28	7161	984.66	1.1608	71.6%	-2686	11100	31.82	-4.9260	-2.4943	95.9%	81.08	12.11	13.92	2.0402	0.9836	64.2%	-6.49	22.08
WELDON	WLDNCAXF	1.68	0.0768	0.7528	52.4%	0.91	1.98	3946	487.90	1.5133	82.6%	-933	5898	37.11	-4.9108	-2.3508	94.9%	86.22	17.47	6.05	0.6109	1.1158	69.9%	-0.06	8.49
MAMMOTH LAKES	MMLKCAXF	0.45	0.0376	2.2224	93.8%	0.07	0.60	6182	-598.00	-0.9036	60.4%	12162	3790	41.23	-4.8275	-2.4885	95.8%	89.51	21.92	16.18	-4.0733	-1.4679	81.4%	56.91	-0.11
PACOIMA	PACMCAXF	0.54	0.0195	0.8178	56.0%	0.34	0.61	3265	166.77	0.4372	32.5%	1597	3932	49.28	-4.7487	-1.8709	89.6%	96.77	30.29	4.21	0.3273	0.7437	51.9%	0.94	5.52
POINT MUGU	MUGUCAXF	0.65	0.0185	0.4681	34.6%	0.47	0.73	4660	-412.94	-0.8756	59.0%	8789	3008	42.28	-4.7221	-2.4385	95.5%	89.50	23.39	4.98	0.6885	1.8487	89.3%	-1.90	7.74
MONROVIA	MNRVCAXG	0.79	0.0474	1.6013	84.7%	0.31	0.98	2375	268.61	1.8998	90.1%	-311	3449	52.99	-4.6981	-2.6006	96.5%	99.97	34.19	3.64	0.4674	2.3679	95.0%	-1.03	5.51
NORWALK/NORWALK ALONDRA/ART	NRWLCAXF	0.54	0.0106	0.4105	30.6%	0.43	0.58	2633	267.44	1.0558	67.4%	-41	3703	55.69	-4.6653	-2.2214	93.8%	102.34	37.03	3.85	0.4059	1.2732	75.6%	-0.21	5.47
NEWBURY PARK	NWPKCAXF	0.18	0.0093	1.3212	77.2%	0.08	0.22	6004	1183.55	2.6423	96.7%	-5832	10738	45.73	-4.6245	-1.9559	90.9%	91.97	27.23	7.37	1.6444	4.5085	99.7%	-9.08	13.94
PACIFIC PALISADES	PCPLCAXF	0.71	0.0422	1.0920	68.9%	0.29	0.88	2649	208.94	1.1744	72.1%	559	3485	49.86	-4.5975	-2.6018	96.5%	95.83	31.47	3.75	0.3067	1.1838	72.5%	0.68	4.97
FARMINGTON	FRTNCAXF	1.33	0.0605	0.8791	59.1%	0.73	1.58	2815	235.72	0.9398	62.1%	458	3758	54.09	-4.5952	-1.1651	71.8%	100.04	35.71	4.34	0.1924	0.4593	34.0%	2.42	5.11
EXETER	EXTRCAXF	1.04	0.0337	0.6906	48.8%	0.70	1.18	2863	245.52	1.1632	71.7%	407	3845	51.66	-4.5655	-2.2029	93.7%	97.32	33.40	4.17	0.4331	1.1144	69.8%	-0.16	5.90
EL RIO	ELRICAXF	0.28	0.0107	1.7501	87.6%	0.17	0.32	2755	230.39	0.8679	58.6%	451	3676	45.87	-4.5275	-2.0819	92.4%	91.14	27.76	4.20	0.3310	1.0253	66.1%	0.89	5.52
LA PUENTE	LAPNCAXG/	0.70	0.0105	0.3842	28.8%	0.60	0.74	2445	241.97	1.6157	85.0%	25	3412	53.28	-4.4867	-2.2411	94.0%	98.15	35.33	3.70	0.3601	1.6601	85.9%	0.10	5.14
BRIDGEPORT	BRPTCAXF	0.69	0.0618	1.1143	69.8%	0.07	0.94	4115	1004.84	1.7988	88.5%	-5934	8134	49.94	-4.4451	-1.0904	68.8%	94.40	32.16	6.69	1.9949	2.1860	93.5%	-13.26	14.67
SUNLD TJNG	SNLDCAXF	0.75	-0.0020	-0.0418	3.2%	0.77	0.74	3246	208.22	0.5932	42.8%	1164	4079	40.43	-4.4448	-2.0574	92.1%	84.88	22.66	4.38	0.1443	0.3458	26.0%	2.94	4.96
SIERRA MADRE/PASADENA	SRMDCAXF	0.80	0.0316	0.6878	48.6%	0.48	0.93	2621	276.89	1.4982	82.2%	-148	3728	50.28	-4.3304	-2.1316	92.9%	93.58	32.96	4.02	0.3718	1.4381	80.6%	0.30	5.50
WEAVERVILLE	WVVLCAXG	0.64	0.0601	4.0849	99.5%	0.04	0.88	2653	187.82	0.8820	59.3%	774	3404	50.86	-4.2677	-1.5959	84.5%	93.54	33.79	3.73	0.2030	0.7943	54.7%	1.70	4.54
HERMOSA BEACH/MANHATTAN BEA	HRBHCAXA	0.35	0.0053	0.3395	25.6%	0.30	0.37	2386	190.47	1.2101	73.4%	481	3148	56.93	-4.0902	-2.1429	93.1%	97.84	40.57	3.33	0.2621	1.3863	79.2%	0.71	4.38
LAKE HUGHES	LKHGCAXF	1.22	0.0727	0.8601	58.2%	0.50	1.51	3973	626.71	1.9035	90.1%	-2294	6480	41.32	-4.0197	-2.2234	93.8%	81.51	25.24	6.63	0.7013	1.2247	74.0%	-0.38	9.44
BIG BEAR CITY	BBCYCAXF	0.68	0.0529	1.8183	88.8%	0.16	0.90	2391	230.03	0.8175	55.9%	91	3311	57.84	-4.0183	-1.8025	88.6%	98.02	41.77	3.27	0.1708	0.4541	33.7%	1.56	3.95
BERRENDA MESA	BRMSCAXF	4.05	1.1494	1.8004	88.5%	-7.44	8.65	2334	700.42	1.8732	89.7%	-4670	5136	8.89	-4.0000	-1.1921	72.8%	48.89	-7.11	2.94	0.7567	1.2870	76.1%	-4.63	5.97
LAKE ISABELLA	LKISCAXF	1.15	0.1212	2.5025	95.9%	-0.06	1.63	3692	269.44	0.6725	47.7%	998	4770	42.22	-3.9812	-1.8198	88.8%	82.03	26.29	5.67	0.2978	0.6000	43.3%	2.69	6.86
CHINO/LOS SERRANOS	CHNOCAXF	0.33	0.0097	0.9091	60.6%	0.23	0.37	1958	133.60	3.4826	99.0%	622	2492	57.87	-3.9295	-4.5157	99.7%	97.17	42.15	2.88	0.2711	4.2544	99.6%	0.17	3.96
WESTMINSTER	WMNSCAXF	0.69	0.0307	0.7173	50.4%	0.39	0.82	3013	344.27	0.9575	63.0%	-430	4390	51.44	-3.8619	-1.8914	90.0%	90.06	35.99	4.39	0.5524	1.2682	75.5%	-1.14	6.60
TRONA	TRONCAXF	1.34	0.0829	0.6768	48.0%	0.51	1.67	4344	603.78	1.8495	89.3%	-1694	6759	24.09	-3.8611	-1.4849	81.9%	62.70	8.64	6.61	1.2667	2.6010	96.5%	-6.06	11.68
COVINA	COVNCAXF	0.55	0.0112	0.4259	31.7%	0.44	0.59	2488	245.69	1.3057	76.7%	31	3471	54.04	-3.7984	-1.7681	88.0%	92.03	38.85	3.62	0.3781	1.7687	88.0%	-0.16	5.13
SANTA MONICA/SANTA MONICA OCE	SNMNCAXG	0.58	0.0010	0.0347	2.7%	0.57	0.58	2294	152.63	1.0968	69.1%	768	2905	54.30	-3.7955	-1.9842	91.2%	92.25	39.12	3.43	0.2734	1.1656	71.8%	0.70	4.52
THOUSAND OAKS(CONEJO)	THOKCAXH	0.38	-0.0405	-1.5928	84.5%	0.78	0.21	3924	383.06	1.2742	75.7%	94	5457	45.02	-3.7792	-1.2062	73.3%	82.81	29.90	4.88	0.4418	0.9538	62.8%	0.46	6.65
CARPINTERIA	CRPRCAXF	1.08	-0.0463	-0.6335	45.3%	1.54	0.89	4611	-537.83	-0.7882	54.4%	9989	2460	41.35	-3.7275	-1.3034	76.6%	78.63	26.44	8.82	-1.7100	-0.9412	62.2%	25.92	1.98
CUYAMA	CUYMCAXF	1.18	-0.0303	-0.2784	21.1%	1.48	1.06	4439	711.98	1.2505	74.9%	-2680	7287	24.58	-3.6717	-1.3404	77.8%	61.30	9.89	6.48	0.8893	0.7378	51.5%	-2.42	10.03
PLAYA DEL REY	PDRYCAXF	0.74	0.0000	-0.0012	0.1%	0.74	0.74	2882	281.22	1.3317	77.5%	70	4007	52.18	-3.6624	-1.8000	88.5%	88.81	37.53	4.26	0.4348	1.0983	69.2%	-0.09	6.00
DOWNEY/DOWNEY IMPERIAL/BELL (	DWNYCAXF	0.85	0.0325	0.5961	43.0%	0.52	0.98	2645	225.62	0.7643	53.0%	389	3547	53.90	-3.6106	-1.6253	85.2%	90.00	39.45	3.86	0.3646	0.9610	63.1%	0.21	5.32
WEIMAR	WEMRCAXF	1.11	0.0195	0.3361	25.3%	0.91	1.18	2629	218.16	4.5443	99.7%	447	3501	33.05	-3.6021	-2.3706	95.0%	69.07	18.65	4.08	0.2640	2.6542	96.7%	1.44	5.14
HUNTINGTON BEACH	HNBHCAXG	0.71	0.0420	1.9338	90.6%	0.29	0.88	3465	281.93	0.7884	54.4%	646	4593	45.55	-3.5257	-2.0594	92.2%	80.80	31.44	5.19	0.5238	0.9545	62.8%	-0.05	7.29
HAYFORK	HYFKCAXF	0.94	0.0590	0.7638	53.0%	0.35	1.17	2741	105.31	0.4709	34.8%	1688	3162	51.70	-3.5101	-0.9507	62.7%	86.80	37.66	3.89	0.1757	0.5235	38.3%	2.13	4.59
BADGER	BDGRCAXF	5.44	0.6524	1.5617	83.8%	-1.09	8.04	5419	986.84	1.9027	90.1%	-4450	9366	25.04	-3.4821	-0.8148	55.8%	59.86	11.11	7.97	1.5483	1.3600	78.4%	-7.51	14.17
ALDERPOINT	ALPNCAXF	2.23	-0.0289	-0.2064	15.8%	2.52	2.11	7937	509.91	0.4750	35.1%	2838	9977	24.88	-3.3981	-1.6804	86.3%	58.86	11.28	13.56	0.6096	0.2723	20.7%	7.47	16.00
JUNE LAKE	JNLKCAXF	0.42	0.0440	1.0969	69.1%	-0.02	0.60	3225	636.19	1.6888	86.5%	-3137	5770	41.43	-3.2143	-0.5439	39.7%	73.57	28.57	5.59	1.5753	1.4722	81.6%	-10.16	11.89
LONG BEACH	LNBHCAXF/	0.53	0.0317	1.0861	68.7%	0.21	0.66	2432	234.77	1.0924	68.9%	84	3371	58.77	-3.1465	-1.4635	81.3%	90.23	46.18	3.50	0.2842	0.8606	58.2%	0.66	4.64
LOS ANGELES (MARS VISTA)	CLCYCAXG	0.68	0.0463	1.1189	70.0%	0.22	0.86	2229	130.07	0.7416	51.8%	928	2749	56.52	-3.0742	-1.2038	73.2%	87.26	44.22	3.42	0.2558	0.9075	60.6%	0.86	4.44
LEGGETT	LGGTCAXF	2.61	0.5719	3.0322	98.1%	-3.11	4.89	9205	439.02	0.4239	31.6%	4815	10962	28.81	-3.0438	-0.6856	48.5%	59.24	16.63	12.35	0.5683	0.3492	26.3%	6.67	14.62
GRANT GROVE VILLAGE	GGVGCAXF	1.04	0.1684	1.3982	79.5%	-0.64	1.72	5618	516.26	0.7446	51.9%	455	7683	20.19	-2.9444	-0.8409	57.2%	49.63	8.41	8.43	1.0797	1.1964	73.0%	-2.36	12.75
SEAL BEACH (ALAMITOS)	SLBHCAXF	0.51	0.0298	1.0409	66.7%	0.21	0.62	2346	164.29	1.3286	77.4%	703	3003	53.68	-2.8901	-1.9595	90.9%	82.58	42.12	3.35	0.2889	1.4376	80.6%	0.46	4.50

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Table 4F-8(b) (continued)

Wire Center Name	CLLI	Mean Val	OOS Ratio (actual) Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Average Duration (adjusted) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Sorted by Coefficient Of Pct Cleared within 24 hours Mean Val	Pct cleared within 24 hrs (actual) Coef	t-stat	Conf.	2Q16 Val	4Q19 Val	Days to Clear 90% (actual) Mean Val	Coef	t-stat	Conf.	2Q16 Val	4Q19 Val
LAGUNA BEACH/SOUTH LAGUNA BE	LGBHCAXF/	0.74	0.0457	2.6123	96.5%	0.28	0.92	3893	355.84	0.9528	62.8%	334	5316	40.10	-2.8749	-1.3880	79.2%	68.85	28.60	6.18	0.5974	0.9822	64.1%	0.20	8.56
LONG BEACH STADIUM (LAKEWOOD	LNBHCAXS	0.52	0.0388	0.9816	64.1%	0.13	0.68	2465	143.14	0.4636	34.3%	1033	3037	59.22	-2.8575	-1.1503	71.2%	87.80	47.79	3.49	0.2258	0.6583	46.9%	1.23	4.40
WHITEHORN	WHTNCAXF	1.69	-0.0815	-0.8048	55.3%	2.51	1.37	5528	1147.37	2.1752	93.4%	-5946	10117	30.74	-2.7649	-1.1011	69.3%	58.39	19.68	8.01	1.5741	2.0903	92.5%	-7.73	14.31
ALPAUGH	ALPGCAXF	2.09	-0.3961	-1.5242	82.9%	6.05	0.51	3334	286.55	0.7731	53.5%	469	4480	29.87	-2.6087	-0.6491	46.3%	55.96	19.44	4.29	0.1539	0.3326	25.1%	2.75	4.91
TOPANGA	TPNGCAXF	0.77	0.1316	1.6913	86.5%	-0.55	1.30	7266	825.94	0.8569	58.0%	-993	10570	21.60	-2.5147	-1.1444	71.0%	46.75	11.54	12.45	1.6857	1.1181	70.0%	-4.41	19.19
OLANCHA (OJAI)	OLNCCAXF	0.84	0.0859	1.4372	80.6%	-0.02	1.18	6541	801.48	1.5726	84.0%	-1474	9747	16.67	-2.5000	-0.5222	38.2%	41.67	6.67	7.74	1.2328	1.5565	83.6%	-4.59	12.67
BIG PINE	BGPICAXF	0.80	0.0323	0.5622	40.8%	0.47	0.93	3751	696.66	1.8313	89.0%	-3216	6537	37.09	-2.4921	-0.5855	42.3%	62.01	27.12	4.60	0.8334	2.0974	92.6%	-3.73	7.93
SANTA BARBARA/GOLETO/MONTEC	SNBBCAXF/	0.85	0.0311	0.7073	49.8%	0.54	0.97	4018	129.65	0.4769	35.2%	2722	4537	41.83	-2.4510	-1.0742	68.2%	66.34	32.02	5.38	0.1100	0.2888	21.9%	4.28	5.82
LAYTONVILLE	LYVLCAXF	1.75	0.0098	0.1127	8.7%	1.66	1.79	6483	474.08	0.6808	48.2%	1743	8380	28.48	-2.3705	-0.8901	59.7%	52.19	19.00	10.28	0.6191	0.5593	40.7%	4.09	12.75
GARBERVILLE	GRVLCAXF	1.58	0.0616	0.7756	53.7%	0.96	1.82	4438	277.54	0.5969	43.1%	1663	5548	39.51	-2.1968	-0.8749	58.9%	61.48	30.73	7.14	0.4871	0.6902	48.8%	2.27	9.09
WEST LOS ANGELES/WEST LOS AN	WLANCAXF	0.53	-0.0054	-0.1843	14.1%	0.58	0.51	2520	119.56	0.4488	33.3%	1325	2998	53.15	-2.1930	-1.0294	66.2%	75.08	44.38	3.75	0.1464	0.4235	31.5%	2.29	4.34
BUTTONWILLOW	BTNWCAXF	1.48	0.1065	0.9689	63.5%	0.41	1.90	3537	266.89	0.9365	62.0%	868	4604	30.21	-2.1772	-0.9418	62.2%	51.98	21.50	5.71	0.3027	0.5636	40.9%	2.68	6.92
LINDEN	LNDNCAXF	1.16	-0.0240	-0.3592	27.0%	1.40	1.06	2456	-93.86	-0.8874	59.6%	3395	2081	47.48	-2.0761	-0.9137	60.9%	68.24	39.17	3.18	0.0443	0.5205	38.1%	2.74	3.36
COVELO	CVELCAXF	2.40	-0.1107	-1.1287	70.4%	3.51	1.96	8102	672.67	0.6999	49.3%	1375	10793	20.96	-2.0426	-0.9745	63.8%	41.39	12.79	10.71	0.4815	0.3882	29.1%	5.89	12.63
ROBBINS	RBNSCAXG	1.50	0.0382	0.3370	25.4%	1.12	1.65	3710	583.47	2.6996	96.9%	-2124	6044	10.56	-1.9167	-0.8187	56.0%	29.72	2.89	4.20	0.4938	1.3793	79.0%	-0.74	6.17
WILLOW CRK	WWCKCAXI	1.15	0.0774	1.3999	79.6%	0.38	1.46	5079	477.12	1.6209	85.1%	308	6988	17.83	-1.7668	-1.1935	72.8%	35.50	10.77	6.60	0.4580	1.1961	72.9%	2.02	8.43
PARKFIELD	PRFDCAXF	0.54	-0.1634	-0.7534	52.4%	2.18	-0.11	153	-45.99	-0.7534	52.4%	613	-31	4.44	-1.3333	-0.7534	52.4%	17.78	-0.89	0.20	-0.0595	-0.7534	52.4%	0.79	-0.04
HOOPA	HOPACAXF	0.71	-0.0069	-0.0983	7.6%	0.78	0.68	4151	374.63	1.7911	88.4%	405	5649	16.20	-0.9470	-0.5897	42.6%	25.67	12.42	5.42	0.1038	0.2883	21.9%	4.38	5.83
LONE PINE	LNPNCAXF	0.96	0.1387	2.7411	97.1%	-0.43	1.51	4875	718.32	1.4750	81.6%	-2309	7748	27.83	-0.7168	-0.3121	23.6%	35.00	24.96	7.23	1.1329	1.6411	85.5%	-4.10	11.76
DESERT CENTER	DSCTCAXG	9.74	0.6917	0.9036	60.4%	2.82	12.51	3779	130.38	0.3278	24.7%	2475	4300	42.35	-0.6667	-0.1591	12.2%	49.01	39.68	7.74	0.0270	0.0274	2.1%	7.47	7.85
CLEMENTS	CLEMCAXF	1.71	0.0730	0.7409	51.7%	0.98	2.00	2328	-22.21	-0.1820	13.9%	2550	2239	57.78	-0.6250	-0.2662	20.2%	64.03	55.28	4.52	0.4160	1.3158	77.0%	0.36	6.19
CORCORAN	CRCRCAXF	1.65	0.1102	1.4974	82.2%	0.54	2.09	3796	220.23	0.9817	64.1%	1594	4677	32.05	-0.4058	-0.2573	19.6%	36.10	30.42	5.90	0.4855	1.2896	76.2%	1.05	7.84
DOS PALOS/ORO LOMA	DSPLCAXF/	1.44	0.1269	1.6422	85.5%	0.17	1.94	2984	74.91	0.3907	29.2%	2235	3283	39.17	-0.3369	-0.1267	9.7%	42.54	37.83	4.46	-0.0141	-0.0524	4.0%	4.60	4.41
GLENNVILLE	GLVLCAXF	1.87	0.2802	3.3351	98.7%	-0.94	2.99	6355	191.89	0.3546	26.7%	4436	7123	11.11	-0.1086	-0.0715	5.5%	12.19	10.67	9.69	0.2721	0.3371	25.4%	6.96	10.77
KENWOOD	KNWDCAXF	1.48	-0.1431	-1.0452	66.9%	2.91	0.91	6887	-258.46	-0.4529	33.6%	9472	5853	15.56	0.9921	0.6058	43.6%	5.64	19.53	15.70	-1.0081	-0.4791	35.4%	25.78	11.66
SAN MIGUEL	SNMGCAXF	0.50	0.0416	1.0377	66.6%	0.09	0.67	10452	-4038.10	-2.7869	97.3%	50833	-5700	45.61	1.1869	0.4678	34.6%	33.74	50.36	19.48	-8.2267	-2.8335	97.5%	101.75	-13.42
CALIFORNIA HOT SPRINGS	CHSPCAXF	2.17	0.2209	1.7402	87.5%	-0.04	3.06	5449	192.77	0.5200	38.1%	3522	6220	22.18	1.2506	0.5964	43.0%	9.67	27.18	8.16	0.3689	0.6001	43.3%	4.47	9.64
SAN JOAQUIN/TRANQUILLITY	SNJQCAXF/	1.16	-0.0170	-0.2285	17.4%	1.33	1.10	3614	161.95	0.8711	58.7%	1995	4262	34.66	1.5129	0.4493	33.3%	19.53	40.71	5.33	0.3145	1.5532	83.6%	2.19	6.59
LOST HILLS	LSHLCAXF	1.01	0.1003	1.4187	80.1%	0.00	1.41	3626	-54.81	-0.2851	21.6%	4175	3407	21.03	2.0140	0.7095	49.9%	0.89	29.08	4.25	0.0167	0.0784	6.0%	4.08	4.31
ELLWOOD (GAVIOTA)	ELWDCAXF	1.07	-0.0400	-0.6385	45.7%	1.47	0.91	5183	-223.09	-0.3278	24.7%	7414	4291	36.79	2.3426	0.6750	47.9%	13.36	46.16	7.52	-0.6282	-0.9577	63.0%	13.80	5.00
RANDSBURG	RNBGCAXF	0.72	0.1865	2.2236	93.8%	-1.15	1.46	3927	274.75	0.4685	34.6%	1179	5026	5.56	3.3333	1.7321	87.3%	-27.78	18.89	3.47	0.2648	0.4863	35.8%	0.82	4.53
CANTUA CREEK	CNCKCAXF	1.90	0.1419	1.2176	73.7%	0.48	2.47	4451	122.49	0.2998	22.7%	3226	4941	25.28	3.7639	1.2454	74.7%	-12.36	40.33	6.33	0.6856	0.8876	59.6%	-0.52	9.07
BENTON	BNTNCAXF	1.79	0.1473	1.2586	75.1%	0.31	2.38	4383	-16.64	-0.0693	5.3%	4549	4316	19.81	4.4259	1.3623	78.5%	-24.44	37.52	5.21	0.1416	0.5511	40.1%	3.80	5.78
SNELLING	SNNGCAXG	2.79	-0.0208	-0.0916	7.0%	3.00	2.71	4221	-291.98	-1.0765	68.3%	7141	3053	29.54	4.6212	1.1563	71.5%	-16.68	48.02	4.55	-0.3865	-1.4571	81.2%	8.41	3.00
LANCASTER ANTELOPE (HI VISTA)	LNCSCAXF	1.29	-0.0999	-0.6552	46.7%	2.29	0.89	1718	-142.94	-0.4907	36.1%	3147	1146	55.93	5.3889	1.0202	65.8%	2.04	77.48	2.40	-0.0329	-0.0586	4.5%		

The regression coefficient represents the change, up or down, in the trend on a per-quarter basis. For example, the following values are shown for Frontier's San Bernardino wire center (SNBRCAXK) over the 2016-2019 period with respect to the Percent Cleared within 24 Hours metric. We selected San Bernardino for this example because of the significant change in service quality performance that occurred after 2017:

San Bernardino – Percent out-of-service cleared within 24 hours – 2Q2016–4Q2019					
Mean Value (Mean Val)	Regression Coefficient (Coef)	*t*-statistic (*t*-stat)	Confidence Interval (Conf.)	Starting value - 2nd Quarter 2016 (2Q16 Value)	Ending value - 4th Quarter 2019 (4Q19 Value)
43.10%	–1.1805	–0.9379	63.5%	51.36%	34.83%

From this, we learn that the mean (average) percentage of out-of-service conditions cleared by Frontier within 24 hours was 43.10% over the full 45-month period. At the beginning of the period (second quarter 2016), the predicted regression trend line indicated that Frontier was clearing 51.36% within 24 hours; by the end of the period (fourth quarter of 2019), that performance indicator had dropped to only 34.83%. These are not the actual clearance percentages for either of the two quarters; they are the predicted rate of OOS clearances based upon the linear regression calculation. The "regression coefficient" of –1.1805 is interpreted as the rate of change in the predicted trend per quarter – *i.e.*, as each quarter went by, the percent cleared within 24 hours was *decreasing* by approximately 1.1805%. The *t*-statistic is a measure of the statistical significance of the estimated coefficient, specifically, the confidence that the regression coefficient is significantly different from zero. In general, a *t*-statistic with an absolute value in excess of roughly 2.0 denotes statistical significance at the 95% confidence level. Here, a *t*-value of –0.9379 corresponds to a confidence level of 63.5%. The confidence level corresponding with the *t*-values are also provided on the tables. In this instance, the performance of the San Bernardino wire center with respect to the "percent cleared within 24 hours" metric is, in and of itself, not statistically significant over the full 45-month time frame. However, as we discuss below, our analysis does not end with this determination.

If we then compare the results for the San Bernardino wire center over the full 2016-2019 period with the corresponding results for just the 2018-2019 Phase 2 study period from Table 4A.8(b), we observe a dramatic shift in performance:

San Bernardino – Percent out-of-service cleared within 24 hours						
Period	Mean Value (Mean Val)	Regression Coefficient (Coef)	*t*-statistic (*t*-stat)	Confidence Interval (Conf.)	Starting value - 2nd Quarter 2016 (2Q16 Value)	Ending value - 4th Quarter 2019 (4Q19 Value)
2Q16-4Q19	43.10%	–1.1805	–0.9379	63.5%	51.36%	34.83%
1Q18-4Q19	41.60%	–6.3893	–4.1174	99.6%	105.49%	16.04%

The regression coefficient for the 2018-2019 period has become highly negative, at –6.3893, indicating a highly pronounced downward trend. The high value for the *t*-statistic, at –4.1174, reflecting a confidence level of 99.6%, further confirms the statistical significance of this drop-off in performance.

Although the *t*-statistics for many of the individual wire centers on both Tables 4F.8(a) and 4F.8(b) are relatively low, it would be incorrect to dismiss the regression results as lacking in statistical significance. Both tables have been sorted in order of the regression coefficient, from most negative to most positive.

Regression analyses covering all Frontier wire centers over time using a "Fixed Effects Panel Model."

The individual wire center regression results in Table 4F.8(a) show that the Percent of OOS Cleared Within 24 Hours had been steadily decreasing over the 2Q2016-4Q2019 period for the majority of Frontier wire centers. The results in Table 4F.8(b) show that the Percent of OOS Cleared Within 24 Hours was decreasing at an even greater rate during the Phase 2 study period 1Q2018-4Q2019. Several key observations can be drawn from an exmination of the individual wire center regression results in these two Tables:

(1) The *t*-statistics on the regression coefficient for many individual wire centers, particularly when viewed over the full 2Q2016-4Q2019 period, is relatively low, possibly raising questions as to the statistical significance of these results.

(2) However, for the vast majority of individual wire centers, the regression coefficient taken over the entire 2Q2016–4Q2019 period is negative, indicating a downward slope of the trend line.

(3) The slope of the Phase 2 (1Q2018-4Q2019) trend line is in almost every instance considerably more negative than for the entire 2Q2016–4Q2019 period, irrespective of the confidence level indicated by the *t*-statistic for any particular wire center.

There are several possible explanations for the relatively low *t* values for many of these individual wire center regressions. First, we are dealing with a very limited number of observations – 15 quarters over the full period under Frontier management, and only 8 quarters within the Phase 2 study period. Second, for many individual wire centers, there appear to be large variations from one period to the next. On the other hand, and as noted above, the trend lines for most wire centers follow a similar pattern irrespective of the nominal statistical significance of the individual regression results. In order to further corroborate these seemingly consistent patterns indicated by the individual wire center regression calculations, we utilized a technique known as a "Panel Model" that combines both the temporal and cross-sectional (across all Frontier wire centers) variation in the trouble report data so as to determine the average performance across all Frontier wire centers over time. This is accomplished by formulating several "fixed effects regression models" using quarterly data for the complete set of Frontier wire centers. A "fixed

effects regression" or "panel data model" allows us to estimate the average time trend over all Frontier wire centers while controlling for any time-invariant factors that might affect wire center performance, such as geography, transmission technology, or any other wire center-specific attributes that are fixed over time). By pooling data from all wire centers together, the fixed effects model generates an estimate of the average time trend across all wire centers (the slope coefficient). This is far more precise than any individual wire center regression result because the model includes many more observations. Like the individual wire center regressions, the fixed effects model estimates an equation of the form,

$$y_{it} = \beta_0 + \beta_1 x_{it}$$

where y_{it} is the dependent variable (e.g. percent cleared within 24 hours), x_{it} is the independent variable (in this case, time), and the subscripts i and t denote the wire center and quarter, respectively. Similar to the individual wire center regressions, β_0 essentially represents the average intercept across all wire centers, and β_1, the regression coefficient, represents the average time trend across all wire centers. Also, like the individual wire center regressions, the fixed effect model produces summary statistics such as *t*-statistics, an F-statistic, and an R-squared, all of which can be used to evaluate the precision and fit of the model's results.

The tables below display the results of three fixed effects regressions for three distinct time periods, 2Q2016–4Q2019, 2Q2016–4Q2017 (Phase 1), and 4Q2017–4Q2019 (Phase 2). Table 4F.9 provides the regression statistics for the Percent Cleared within 24 hours (Actual) metric. Tables 4F.10 through 4F.12 provide regression statistics for the Out of Service per 100 Access Lines-Monthly, Average Out-of-Service Duration , and Days Required to Clear 90% (Actual). Table 4F.9 shows that, over the period 2Q2016–4Q2019 and across all Frontier California wire centers , on average the Percent of OOS Cleared Within 24 Hours decreased by 0.875% each quarter. Estimating separate trends for Phase 1 and Phase 2 of the Network Examination, we can determine how Frontier's performance changed over time. During Phase 1,the Percent of OOS Cleared Within 24 Hours taken across all Frontier wire centers increased, on average, by 5.173% each quarter, while in Phase 2, that same metric taken across all Frontier wire centers *decreased*, on average, by 5.335% each quarter. Each of these trends is statistically significant at the 99% confidence level.

Table 4F.9

FRONTIER CALIFORNIA
FIXED EFFECTS REGRESSION RESULTS
Dependent Variable - Percent Cleared within 24 hours (Actual)

Regression Statistic	2Q2016–4Q2019	2Q2016–4Q2017	4Q2017–4Q2019
Slope Coefficient	-0.91038	5.091216	-5.2068
t-statistic	-8.49642	13.49695	-22.6517
Intercept	48.99126	24.68729	98.57107
t-statistic	57.15331	16.36167	38.98408
R-squared	0.029841	0.238543	0.332473
F-statistic	72.1892	182.1676	513.1009
No. of Observations	2850	1330	1710

Table 4F.10

FRONTIER CALIFORNIA
FIXED EFFECTS REGRESSION RESULTS
Dependent Variable - Days Required to Clear 90% (Actual)

Regression Statistic	2Q2016–4Q2019	2Q2016–4Q2017	4Q2017–4Q2019
Slope Coefficient	0.219131	-0.12265	0.531863
t-statistic	10.49139	-1.48148	8.108135
Intercept	3.374997	4.844577	-0.26069
t-statistic	20.19822	14.62879	-0.36129
R-squared	0.035189	0.003495	0.058317
F-statistic	110.0694	2.194788	65.74185
No. of Observations	2850	1330	1710

Table 4F.11

FRONTIER CALIFORNIA
FIXED EFFECTS REGRESSION RESULTS
Dependent Variable - Out of Service per 100 Access Lines-Monthly

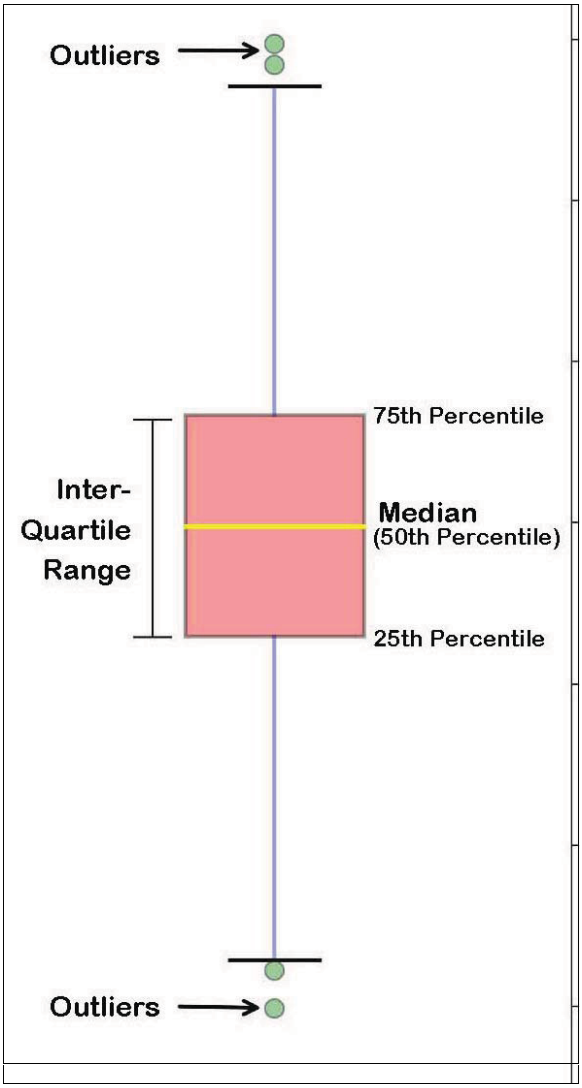
Regression Statistic	2Q2016–4Q2019	2Q2016–4Q2017	4Q2017–4Q2019
Slope Coefficient	-0.02394	-0.20901	0.082792
t-statistic	-0.33715	-0.93629	6.343029
Intercept	1.543705	2.258593	0.320859
t-statistic	2.717106	2.529421	2.234764
R-squared	0.000256	0.002701	0.04804
F-statistic	0.113671	0.876633	40.23402
No. of Observations	2850	1330	1710

Table 4F.12

FRONTIER CALIFORNIA
FIXED EFFECTS REGRESSION RESULTS
Dependent Variable - Average Out-of-Service Duration

Regression Statistic	2Q2016–4Q2019	2Q2016–4Q2017	4Q2017–4Q2019
Slope Coefficient	148.8772	49.79737	298.8095
t-statistic	8.728219	0.764724	6.315532
Intercept	3753.054	4263.884	1997.771
t-statistic	27.50378	16.36981	3.838563
R-squared	0.033573	0.001025	0.040151
F-statistic	76.18181	0.584803	39.88594
No. of Observations	2850	1330	1710

We have plotted the results of these four sets of panel models separately on Figures 4F.3(p), 4F.5(p), 4F.10(p) and 4F.12(p) below, which correspond to Figures 4F.3, 4F.5, 4F.10 and 4F.12 above. These charts utilize a graphics format known as a "Box Diagram." In addition to plotting the individual period trend lines based upon the regression results for each of the three time periods, the box diagrams also show, in a "box" for each time period, the range of individual wire center results that fall within the second and third quartiles – i.e., between the 25th and 75th percentile. The diagram to the right illustrates the components of the Box Diagram.



The charts provide panel model regression results for Out of Service per 100 Access Lines-Monthly (Figure 4F.3(p)); Average Out-of-Service Duration (Figure 4F.5(p)); Percent Cleared Within 24 Hours (Figure 4F.10(p)); and Days Required to Clear 90% (Figure 4F.12(p)). Two versions of each of these box diagrams are provided. The chart at the top of each page omits outliers; the one at the bottom includes them. For some of these, the outliers are so distant from the "box" depicting the second and third quartiles that the scaling of the chart requires that they be squeezed together at the bottom. By providing both versions, it is easier to appreciate both the trend and the extent of variation of individual wire center performance.

A clear pattern emerges for all four of these metrics: Improvement over the initial period of Frontier ownership, followed by a significant reversal over the 2018-2019 Phase 2 period.

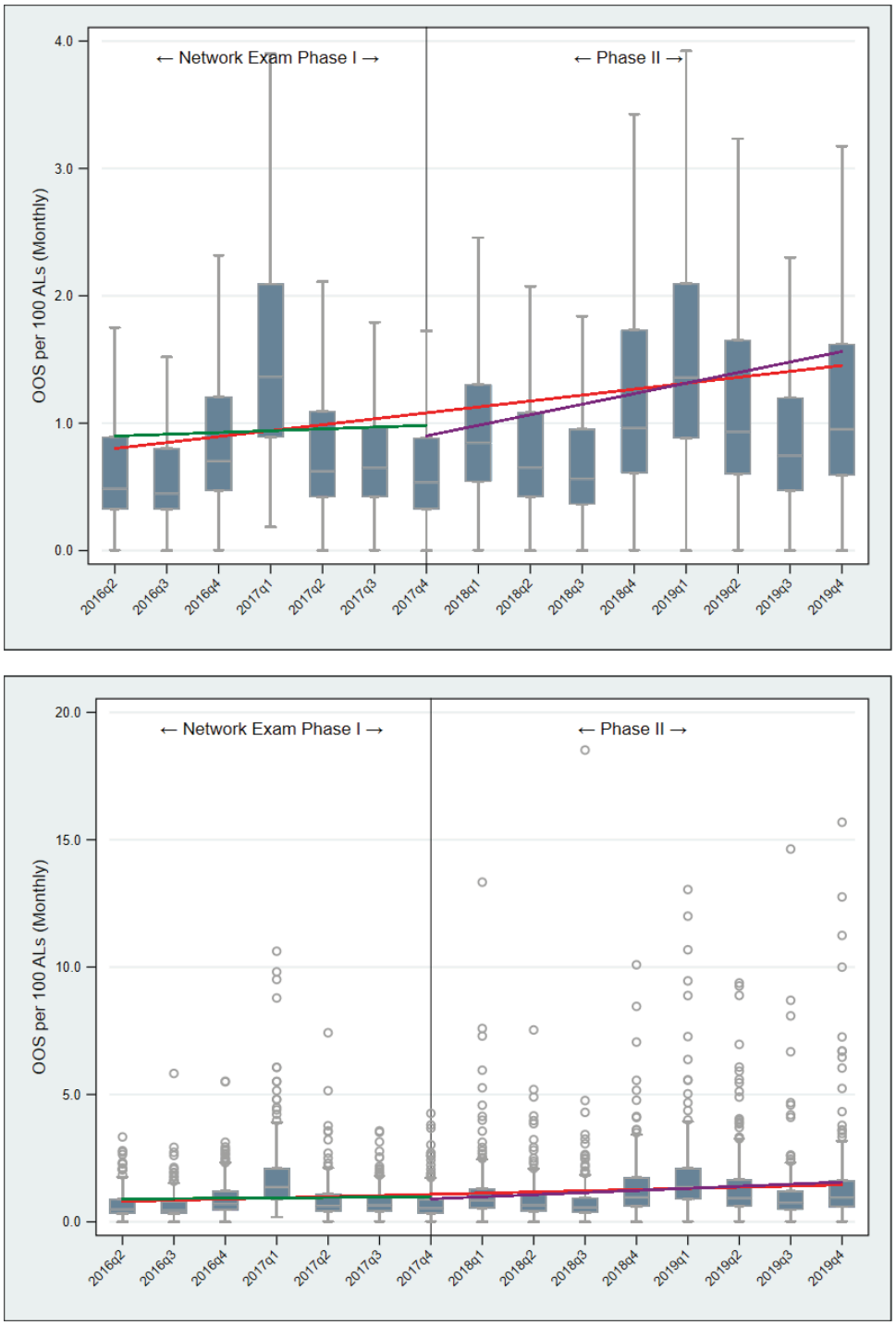


Figure 4F.3(p): Panel Model Box Diagram: Out-of-Service per 100 Access Lines - Monthly.

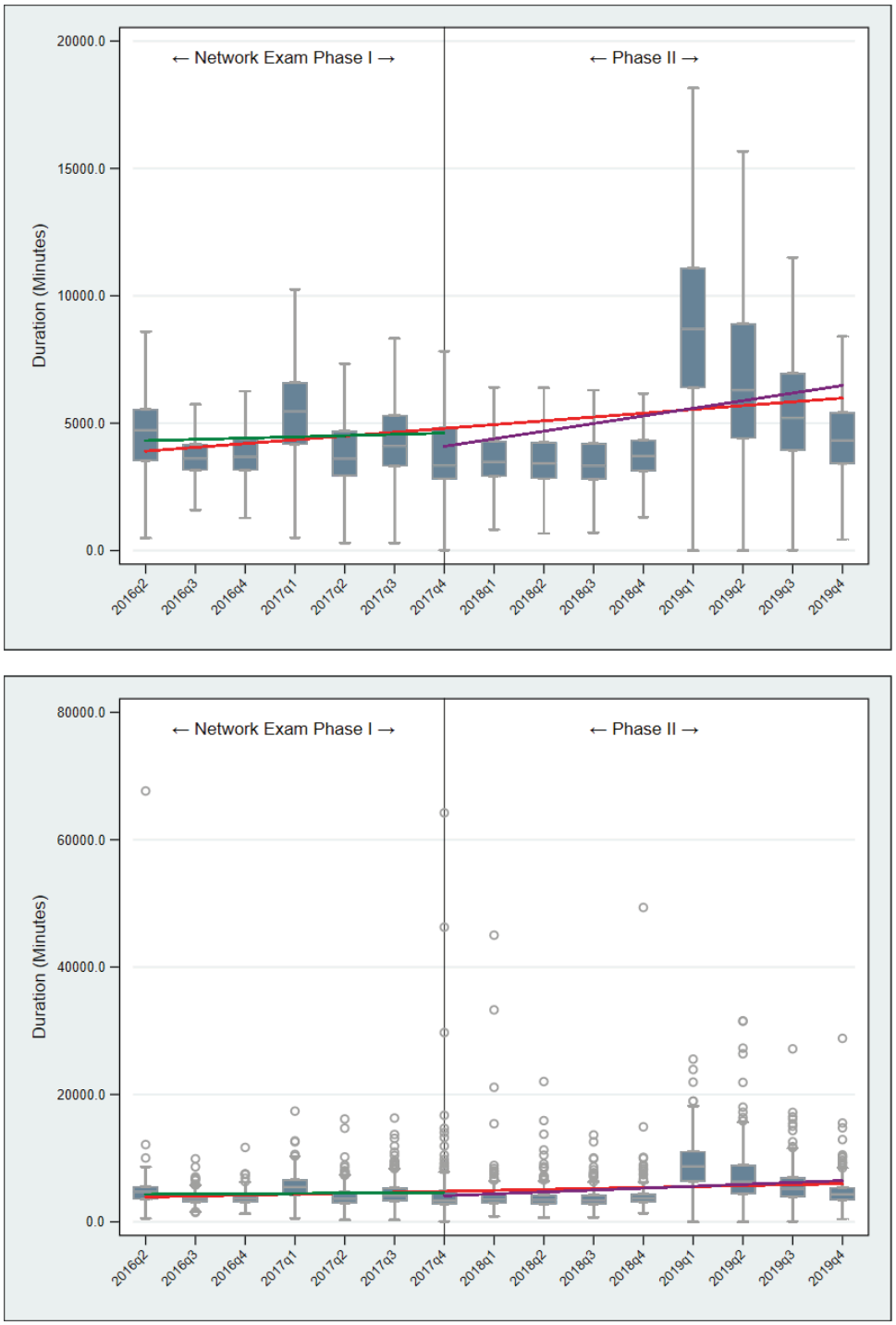


Figure 4F.5(p): Panel Model Box Diagram: Average Out-of-Service Duration (Actual).

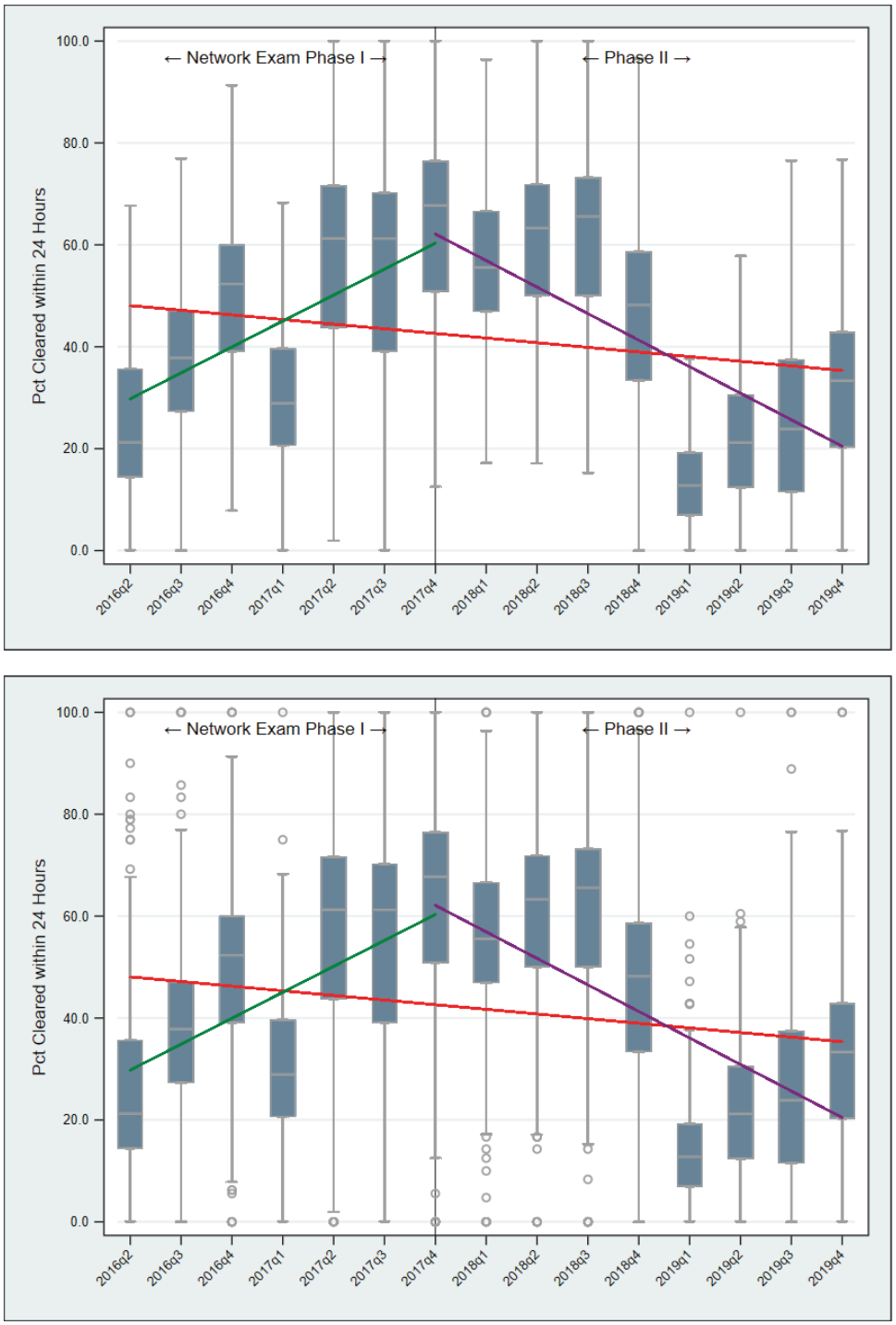


Figure 4F.10(p): Panel Model Box Diagram: Percent Out-of-Service Cleared Within 24 Hours (Actual).

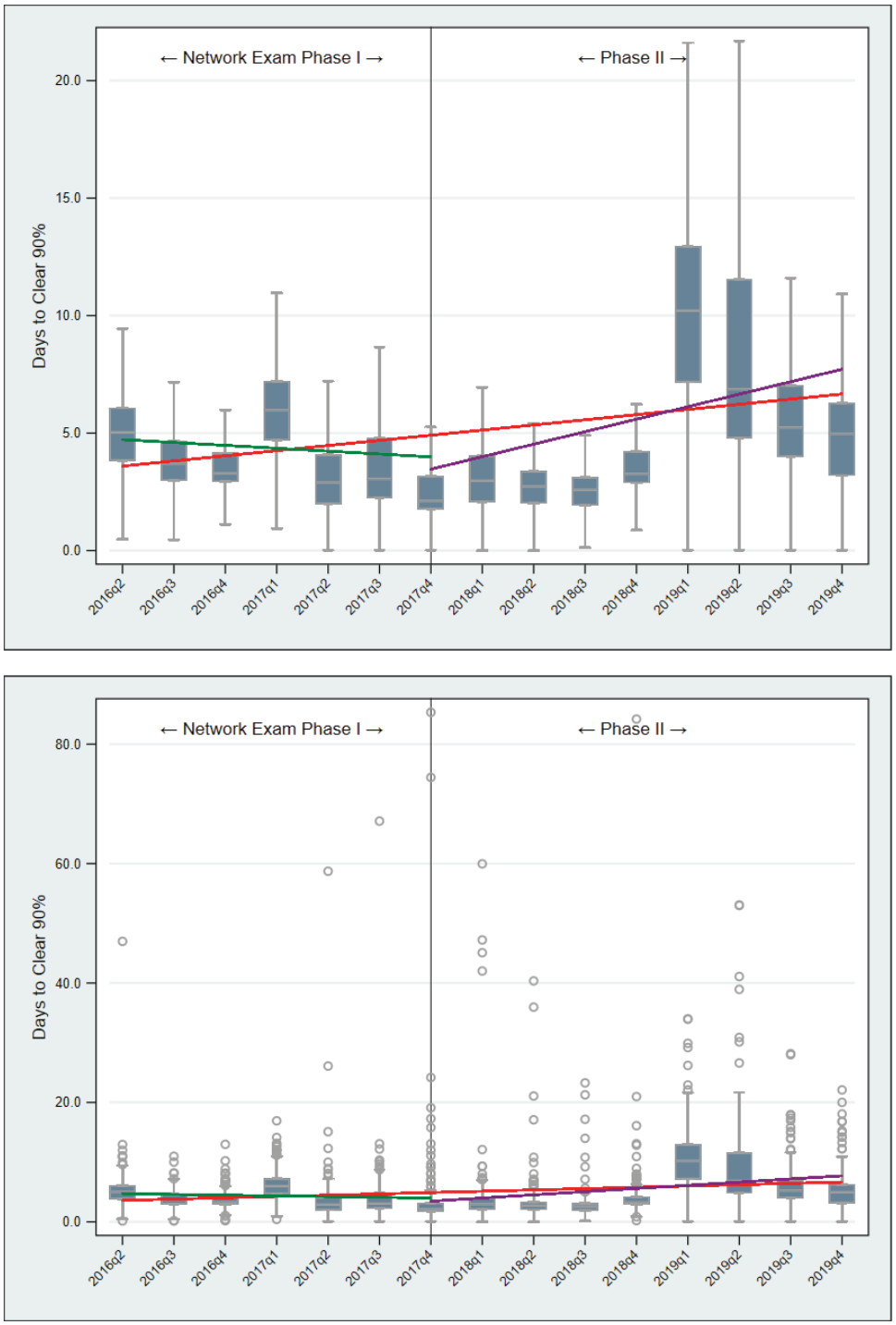


Figure 4F.12(p): Panel Model Box Diagram: Days Requires to Clear 90% of Out-of-Service Conditions (Actual).

Effects of geographic and other wire center attributes upon performance results

While examinations of individual wire centers is essential to isolating specific problem areas and sources of concern, it is also instructive to create groups of individual wire centers having similar geographic or other attributes. In that regard, ETI has constructed five different attribute dimensions – (1) the presence of *FiOS* broadband availability; (2) wire center size (number of access lines); (3) the percentage decrease (loss) in the number of access lines in service to competing providers and/or to competing services over the study period; (4) the population density of the area served by the wire center (households per square mile); and (5) the Frontier Operating Area to which the wire center has been assigned. For each of these five attribute dimensions, ETI has defined a set of categories whose potential effect upon service quality was then individually examined. These are summarized in Table 4F.13 below. As we did with respect to AT&T, ETI applied five similar attribute dimensions to the Frontier data and, for each, we developed summary tabulations of pertinent performance data. In Table 4F.14, we show, for each of these five attribute dimensions, the category in which each individual Frontier wire center has been classified.

For example, the Apple Valley wire center in San Bernardino County (APVYCAXF) has been assigned to the "Yes" category with respect to *FiOS* availability, to the "Large Urban" category with respect to Wire Center Size; to the 60%-80% category with respect to Access Line Loss, to the "54-380 per Square Mile" Density category, and to the Desert Operating Area.

Table 4F.13

FRONTIER CALIFORNIA
WIRE CENTER ATTRIBUTE DIMENSIONS
AND CATEGORIES

Attribute Dimension	Categories
FiOS Broadband Availability	*FiOS* services available *FiOS* services not available
Wire Center Size	Fewer than 1000 lines 1,000-2,999 lines 3,000-10,000 lines 10,001-20,000 lines Over 20,000 lines
Access Line Loss	Lowest 20% 21%-40% 48%-60% 61%-80% Highest 20%
Density (Households per square mile)	0-16 per Sq. Mile 6-54 per Sq. Mile 54-380 per Sq. Mile 380-1700 per Sq. Mile 1700 + per Sq. Mile
Frontier Operating Area	Beach Cities Costal Desert Inland Northern

Table 4F.14

VERIZON/FRONTIER CALIFORNIA
WIRE CENTER ATTRIBUTE CLASSIFICATIONS

CLLI	Reporting Units (Phase II)	Reporting Unit (Phase I)	County	Operating Area	Density Category	Wire Center Size	FTTP / FiOS	FTR Line Loss Category	Income Category	Race Category
ADLNCAXF	ADELANTO	ADELANTO	SAN BERNARDINO	Desert	6<54	Large Metro	Y	80%-100%	$43,000-$54,999	40%-60%
ALPGCAXF	ALPAUGH	ALPAUGH	TULARE	Northern	0<6	Small	N	20%-40%	$0-$42,999	40%-60%
ALPNCAXF	ALDERPOINT	ALDERPOINT	HUMBOLDT	Northern	0<6	Small	N	20%-40%	$0-$42,999	80%-100%
ANZACAXF	ANZA	ANZA	RIVERSIDE	Inland	6<54	Medium	N	-	$43,000-$54,999	60%-80%
	APPLE VALLEY/DESERT									
APVYCAXF/DSKNCAXF	KNOLLS	APPLE VALLEY	SAN BERNARDINO	Desert	54<380	Large Urban	Y	60%-80%	$55,000-$66,999	60%-80%
ARHDCAXF	ARROWHEAD	ARROWHEAD	SAN BERNARDINO	Desert	54<380	Large Metro	N	40%-60%	$55,000-$66,999	80%-100%
AZUSCAXF/GLNDCAXF	AZUSA/GLENDORA	AZUSA	LOS ANGELES	Coastal	>1700	Large Urban	Y	0%-20%	$55,000-$66,999	40%-60%
BBCYCAXF	BIG BEAR CITY	BIG BEAR CITY	SAN BERNARDINO	Desert	54<380	Large Metro	N	40%-60%	$43,000-$54,999	80%-100%
BBLKCAXF	BIG BEAR LAKE	BIG BEAR LAKE	SAN BERNARDINO	Desert	54<380	Large Metro	N	80%-100%	$55,000-$66,999	80%-100%
BDGRCAXF	BADGER	BADGER	TULARE	Northern	0<6	Small	N	0%-20%	$67,000-$87,999	80%-100%
BELRCAXF	BEL AIR (SOMIS)	BEL AIR	LOS ANGELES	Beach Cities	380<1700	Very Large	Y	20%-40%	$88,000 +	80%-100%
BGPICAXF	BIG PINE	BIG PINE	INYO	Gateway	6<54	Small	N	20%-40%	$55,000-$66,999	80%-100%
BLFLCAXF	BELLFLOWER	BELLFLOWER	LOS ANGELES	Coastal	>1700	Very Large	Y	40%-60%	$67,000-$87,999	40%-60%
BLPKCAXF	BALDWIN PARK	BALDWIN PARK	LOS ANGELES	Coastal	>1700	Very Large	N	80%-100%	$67,000-$87,999	40%-60%
BNNGCAXF/BUMTCAXF	BANNING/BEAUMONT	BANNING	RIVERSIDE	Desert	54<380	Large Metro	Y	-	$43,000-$54,999	60%-80%
BNTNCAXF	BENTON	BENTON	MONO	Gateway	0<6	Small	N	20%-40%	$55,000-$66,999	80%-100%
BORNCAXF/NEDWCAXF	BORON/NORTH EDWARDS	BORON	KERN	Gateway	6<54	Small	N	80%-100%	$0-$42,999	80%-100%
BRMSCAXF	BERRENDA MESA	BERRENDA MESA	KERN	Northern	0<6		N	0%-20%	$43,000-$54,999	40%-60%
BRPTCAXF	BRIDGEPORT	BRIDGEPORT	MONO	Gateway	0<6	Small	N	20%-40%	$43,000-$54,999	80%-100%
BRSWCAXH/BRSWCAXJ	BARSTOW/BARSTOW	BARSTOW	SAN BERNARDINO	Desert	54<380	Large Metro	N	80%-100%	$43,000-$54,999	60%-80%
BSHPCAXG	BISHOP	BISHOP	INYO	Gateway	6<54	Large Metro	N	0%-20%	$55,000-$66,999	60%-80%
BTNWCAXF	BUTTONWILLOW	BUTTONWILLOW	KERN	Northern	6<54	Small	N	20%-40%	$0-$42,999	40%-60%
CCHLCAXF	COACHELLA (EAGLE MTN)	COACHELLA	RIVERSIDE	Desert	6<54	Large Metro	Y	80%-100%	$43,000-$54,999	40%-60%
CCMNCAXF	CUCAMONGA (SAGE)	CUCAMONGA	SAN BERNARDINO	Inland	>1700	Very Large	Y	80%-100%	$67,000-$87,999	60%-80%
CFCYCAXF	CALIFORNIA CITY	CALIFORNIA CITY	KERN	Gateway	6<54	Large Metro	N	0%-20%	$43,000-$54,999	60%-80%
CHLKCAXF	CHINA LAKE	CHINA LAKE	KERN	Gateway	6<54	Large Metro	N	20%-40%	$55,000-$66,999	80%-100%
CHNOCAXF/LSSRCAXF	CHINO/LOS SERRANOS	CHINO	SAN BERNARDINO	Gateway	380<1700	Very Large	Y	80%-100%	$67,000-$87,999	40%-60%
CHSPCAXF	CALIFORNIA HOT SPRINGS	CALIF HOT SPRINGS	TULARE	Northern	0<6	Small	N	20%-40%	$0-$42,999	60%-80%
CLCYCAXG	LOS ANGELES (MARS VISTA)	MAR VISTA	LOS ANGELES	Beach Cities	>1700	Very Large	Y	-	$67,000-$87,999	40%-60%
CLEMCAXF	CLEMENTS	CLEMENTS	SAN JOAQUIN	Northern	0<6	Small	N	-	$67,000-$87,999	60%-80%
CLFXCAXF	COLFAX	COLFAX	PLACER	Northern	6<54	Medium	N	40%-60%	$67,000-$87,999	80%-100%
CLMSCAXF	CALIMESA/YUCAIPA	CALIMESA	RIVERSIDE	Desert	54<380	Large Metro	Y	-	$67,000-$87,999	60%-80%
CLMTCAXF/LVRNCAXF/SNDMC	CLAREMONT/LA VERNE/SAN									
AXF	DIMAS	CLAREMONT	LOS ANGELES	Coastal	>1700	Very Large	Y	60%-80%	$67,000-$87,999	40%-60%
CMRLCAXF	CAMARILLO	CAMARILLO	VENTURA	Gateway	380<1700	Very Large	Y	80%-100%	$88,000 +	60%-80%
CNCKCAXF	CANTUA CREEK	CANTUA CREEK	FRESNO	Northern	0<6	Small	N	80%-100%	$0-$42,999	40%-60%
COVNCAXF	COVINA	COVINA	LOS ANGELES	Coastal	>1700	Very Large	Y	40%-60%	$67,000-$87,999	40%-60%
CRCRCAXF	CORCORAN	CORCORAN	KINGS	Northern	6<54	Large Metro	N	80%-100%	$0-$42,999	40%-60%
CRLKCAXF	CROWLEY LAKE	CROWLEY LAKE	MONO	Gateway	6<54	Small	N	60%-80%	$55,000-$66,999	80%-100%
CRLNCAXF	CRESTLINE	CRESTLINE	SAN BERNARDINO	Desert	380<1700	Large Metro	N	-	$55,000-$66,999	80%-100%
CRPRCAXF	CARPINTERIA	CARPINTERIA	SANTA BARBARA	Gateway	54<380	Large Metro	N	80%-100%	$67,000-$87,999	60%-80%
CUYMCAXF	CUYAMA	CUYAMA	SANTA BARBARA	Northern	0<6	Small	N	-	$67,000-$87,999	80%-100%
CVELCAXF	COVELO	COVELO	MENDOCINO	Northern	0<6	Small	N	0%-20%	$0-$42,999	60%-80%
CZDRCAXG	CAZADERO	CAZADERO	SONOMA	Northern	6<54	Small	N	80%-100%	$55,000-$66,999	80%-100%
DHSPCAXF	DESERT HOT SPRINGS	DESERT HOT SPRINGS	RIVERSIDE	Desert	54<380	Large Metro	Y	80%-100%	$0-$42,999	60%-80%
DMBRCAXF	DIAMOND BAR	DIAMOND BAR	LOS ANGELES	Coastal	380<1700	Large Urban	Y	60%-80%	$88,000 +	20%-40%
DNLPCAXF	DUNLAP	DUNLAP	FRESNO	Northern	6<54	Small	N	0%-20%	$67,000-$87,999	80%-100%
DSCTCAXG	DESERT CENTER	DESERT CENTER	RIVERSIDE	Desert	6<54	Small	N	80%-100%	$0-$42,999	60%-80%
DSPLCAXF/ORMACAXF	DOS PALOS/ORO LOMA	DOS PALOS	MERCED	Northern	6<54	Medium	N	60%-80%	$43,000-$54,999	60%-80%
DSSHCAXF	DESERT SHORES	DESERT SHORES	IMPERIAL	Desert	54<380	Small	N	0%-20%	$0-$42,999	60%-80%
DWNYCAXF/DWNYCAXG/BLGR	DOWNEY/DOWNEY									
CAXF	IMPERIAL/BELL GARDENS	DOWNEY	LOS ANGELES	Coastal	>1700	Very Large	N	0%-20%	$67,000-$87,999	40%-60%
ELMGCAXF	EL MIRAGE	EL MIRAGE	SAN BERNARDINO	Desert	0<6	Small	N	20%-40%	$0-$42,999	40%-60%

Table 4F.14: WIRE CENTER ATTRIBUTE CLASSIFICATIONS (continued)

CLLI	Reporting Units (Phase II)	Reporting Unit (Phase I)	County	Operating Area	Density Category	Wire Center Size	FTTP / FiOS	FTR Line Loss Category	Income Category	Race Category
ELRICAXF	EL RIO	EL RIO	VENTURA	Gateway	380<1700	Large Urban	Y	-	$67,000-$87,999	40%-60%
	ELSINORE									
ELSNCAXG/ELSNCAXF	GRANDE/ELSINORE MAIN	ELSINORE GRAND	RIVERSIDE	Inland	54<380	Large Metro	Y	60%-80%	$67,000-$87,999	60%-80%
ELWDCAXF	ELLWOOD (GAVIOTA)	ELLWOOD	SANTA BARBARA	Gateway	6<54	Large Metro	N	-	$67,000-$87,999	60%-80%
ETWNCAXF	ETIWANDA	ETIWANDA	SAN BERNARDINO	Inland	380<1700	Large Urban	Y	-	$88,000 +	40%-60%
EXTRCAXF	EXETER	EXETER	TULARE	Northern	54<380	Large Metro	N	-	$43,000-$54,999	60%-80%
FRTNCAXF	FARMINGTON	FARMINGTON	STANISLAUS	Northern	6<54	Small	N	0%-20%	$67,000-$87,999	80%-100%
FRVLCAXF	FARMERSVILLE	FARMERSVILLE	TULARE	Northern	54<380	-	N	-	$0-$42,999	40%-60%
FTIRCAXF	FORT IRWIN	FORT IRWIN	SAN BERNARDINO	Desert	0<6	Medium	N	80%-100%	$43,000-$54,999	60%-80%
FWLRCAXF	FOWLER	FOWLER	FRESNO	Northern	54<380	Large Metro	N	40%-60%	$43,000-$54,999	40%-60%
GDLPCAXG	GUADALUPE	GUADALUPE	SANTA BARBARA	Gateway	6<54	Medium	Y	-	$67,000-$87,999	60%-80%
GGVGCAXF	GRANT GROVE VILLAGE	GRANT GROVE	FRESNO	Northern	0<6	Small	N	60%-80%	$67,000-$87,999	80%-100%
GLRYCAXF	GILROY	GILROY	SANTA CLARA	Northern	54<380	Very Large	N	-	$88,000 +	60%-80%
GLVLCAXF	GLENNVILLE	GLENNVILLE	KERN	Northern	0<6	Small	N	0%-20%	$43,000-$54,999	80%-100%
GRHLCAXF	GRANADA HILLS	GRANADA HILLS	LOS ANGELES	Gateway	380<1700	Very Large	Y	20%-40%	$88,000 +	60%-80%
GRVLCAXF	GARBERVILLE	GARBERVILLE	HUMBOLDT	Northern	6<54	Medium	N	0%-20%	$43,000-$54,999	80%-100%
HEMTCASF/VLVSCAXF	HEMET/VALLE VISTA	HEMET	RIVERSIDE	Inland	54<380	Very Large	N	40%-60%	$43,000-$54,999	60%-80%
HMLDCAXF	HOMELAND	HOMELAND	RIVERSIDE	Inland	54<380	Large Metro	Y	40%-60%	$67,000-$87,999	60%-80%
HMVYCAXF	HOMESTEAD VALLEY	HOMESTEAD VALLEY	SAN BERNARDINO	Desert	0<6	Medium	N	40%-60%	$0-$42,999	80%-100%
HNBHCAXG	HUNTINGTON BEACH	HUNTINGTON BEACH	ORANGE	Beach Cities	>1700	Large Urban	Y	60%-80%	$88,000 +	80%-100%
HOPACAXF	HOOPA	HOOPA	HUMBOLDT	Northern	6<54	Medium	N	40%-60%	$0-$42,999	0%-20%
HRBHCAXA	HERMOSA BEACH	REDONDO	LOS ANGELES	Beach Cities	>1700	-	Y	-	$88,000 +	60%-80%
HSPRCAXF	HESPERIA	HESPERIA	SAN BERNARDINO	Desert	380<1700	Very Large	Y	20%-40%	$55,000-$66,999	60%-80%
HYFKCAXF	HAYFORK	HAYFORK	TRINITY	Northern	0<6	Medium	N	20%-40%	$0-$42,999	80%-100%
IDYLCAXF	IDYLLWILD	IDYLLWILD	RIVERSIDE	Inland	6<54	Large Metro	N	20%-40%	$55,000-$66,999	80%-100%
INDICAXG/LAQNCAXG/MECCCA	INDIO/LA									
XF/NSHRCAXF/OASSCAXF/THR	QUINTA/MECCA/NORTH									
MCAXF	SHORE/OASIS/THERMAL	INDIO	RIVERSIDE	Desert	380<1700	Large Urban	Y	60%-80%	$55,000-$66,999	60%-80%
INDPCAXF	INDEPENDENCE	INDEPENDENCE	INYO	Gateway	0<6	Small	N	0%-20%	$43,000-$54,999	60%-80%
INYKCAXF	INYOKERN	INYOKERN	KERN	Gateway	6<54	Medium	N	20%-40%	$43,000-$54,999	80%-100%
JNLKCAXF	JUNE LAKE	JUNE LAKE	MONO	Gateway	0<6	Small	N	20%-40%	$55,000-$66,999	80%-100%
JSTRCAXF	JOSHUA TREE	JOSHUA TREE	SAN BERNARDINO	Desert	6<54	Large Metro	N	20%-40%	$0-$42,999	80%-100%
KNLDCAXF	KNIGHTS LANDING	KNIGHTS LANDING	YOLO	Northern	0<6	Small	N	-	$43,000-$54,999	60%-80%
KNWDCAXF	KENWOOD	KENWOOD	SONOMA	Northern	54<380	Medium	N	80%-100%	$67,000-$87,999	80%-100%
KRVLCAXF	KERNVILLE	KERNVILLE	KERN	Gateway	6<54	Medium	N	20%-40%	$0-$42,999	80%-100%
LAHBCAXF	LA HABRA	LA HABRA	LOS ANGELES	Coastal	380<1700	Large Urban	N	40%-60%	$88,000 +	40%-60%
LAPNCAXG	LA PUENTE	LA PUENTE	LOS ANGELES	Coastal	>1700	Very Large	Y	-	$67,000-$87,999	40%-60%
LCVYCAXF	LUCERNE VALLEY	LUCERNE VALLEY	SAN BERNARDINO	Desert	6<54	Medium	N	-	$43,000-$54,999	80%-100%
	LAGUNA BEACH/SOUTH									
LGBHCAXF/SLGBCAXF	LAGUNA BEACH	LAGUNA BEACH	ORANGE	Beach Cities	380<1700	Large Metro	N	-	$88,000 +	60%-80%
LGGTCAXF	LEGGETT	LEGGETT	MENDOCINO	Northern	0<6	Small	N	-	$0-$42,999	60%-80%
LKHGCAXF	LAKE HUGHES	LAKE HUGHES	LOS ANGELES	Gateway	6<54	Medium	N	-	$67,000-$87,999	60%-80%
LKISCAXF	LAKE ISABELLA	LAKE ISABELLA	KERN	Gateway	6<54	Large Metro	N	20%-40%	$0-$42,999	80%-100%
LMCVCAXF	LEMON COVE	LEMON COVE	TULARE	Northern	6<54	Small	N	20%-40%	$55,000-$66,999	60%-80%
LNBHCAXF	LONG BEACH	LONG BEACH MAIN	LOS ANGELES	Beach Cities	>1700	Very Large	Y	-	$43,000-$54,999	40%-60%
	LANCASTER ANTELOPE (HI									
LNCSCAXF	VISTA)	ANTELOPE	LOS ANGELES	Gateway	6<54	Very Large	Y	-	$43,000-$54,999	40%-60%
LNCSCAXG/QZHLCAXF	LANCASTER/QUARTZ HILL	LANCASTER	LOS ANGELES	Gateway	380<1700	Large Metro	Y	80%-100%	$43,000-$54,999	40%-60%
LNDNCAXF	LINDEN	LINDEN	SAN JOAQUIN	Northern	6<54	Medium	N	40%-60%	$67,000-$87,999	60%-80%
LNDSCAXF/STMRCAXF	LINDSAY/STRATHMORE	LINDSAY	TULARE	Northern	54<380	Large Metro	N	-	$0-$42,999	60%-80%
LNPNCAXF	LONE PINE	LONE PINE	INYO	Gateway	0<6	Medium	N	80%-100%	$0-$42,999	60%-80%
LNWDCAXF	LENWOOD	LENWOOD	SAN BERNARDINO	Desert	6<54	Medium	N	-	$43,000-$54,999	60%-80%
LSALCAXF	LOS ALAMOS	LOS ALAMOS	SANTA BARBARA	Gateway	0<6	Small	Y	-	$67,000-$87,999	80%-100%
LSANCAIK	LOS ANGELES DA 04, CA								$88,000 +	
LSANCAIO	LOS ANGELES DA 07, CA								$88,000 +	
LSGTCAXA	LOS GATOS	BLOSSOM HILL	SANTA CLARA	Northern	380<1700	Large Metro	N	40%-60%	$88,000 +	80%-100%
LSHLCAXF	LOST HILLS	LOST HILLS	KERN	Northern	0<6	Small	N	-	$0-$42,999	20%-40%
LVNGCAXF	LEE VINING	LEE VINING	MONO	Gateway	0<6	Small	N	60%-80%	$55,000-$66,999	80%-100%
LYVLCAXF	LAYTONVILLE	LAYTONVILLE	MENDOCINO	Northern	0<6	Medium	N	0%-20%	$43,000-$54,999	80%-100%
MALBCAXG	MALIBU	MALIBU	LOS ANGELES	Coastal	54<380	Large Metro	Y	-	$88,000 +	80%-100%

Table 4F.14: WIRE CENTER ATTRIBUTE CLASSIFICATIONS (continued)

CLLI	Reporting Units (Phase II)	Reporting Unit (Phase I)	County	Operating Area	Density Category	Wire Center Size	FTTP / FIOS	FTR Line Loss Category	Income Category	Race Category
MCFACAXF	MCFARLAND	MCFARLAND	KERN	Northern	6<54	Medium	N	0%-20%	$0-$42,999	20%-40%
MCKTCAXF	MCKITTRICK	MCKITTRICK	KERN	Northern	0<6	Small	N	0%-20%	$67,000-$87,999	80%-100%
MDRVCAXF	MAD RIVER	MAD RIVER	TRINITY	Northern	0<6	Small	N	0%-20%	$0-$42,999	80%-100%
MENTCAXF	MENTONE	MENTONE	SAN BERNARDINO	Desert	54<380	Large Metro	Y	40%-60%	$67,000-$87,999	60%-80%
MMLKCAXF	MAMMOTH LAKES	MAMMOTH LAKES	MONO	Gateway	0<6	Large Metro	N	-	$55,000-$66,999	80%-100%
MNRVCAXG	MONROVIA	MONROVIA	LOS ANGELES	Coastal	380<1700	Very Large	N	60%-80%	$67,000-$87,999	40%-60%
MNTCCAXG/LTHPCAXF	MANTECA/LATHROP	MANTECA	SAN JOAQUIN	Northern	380<1700	Large Urban	N	60%-80%	$67,000-$87,999	60%-80%
MRHLCAXF	MORGAN HILL	MORGAN HILL	SANTA CLARA	Northern	54<380	Large Urban	N	60%-80%	$88,000 +	60%-80%
MRMNCASF	MIRANTPHST								$88,000 +	
MRVYCAXF	MORONGO VALLEY	MORONGO VALLEY	SAN BERNARDINO	Desert	6<54	Medium	N	40%-60%	$43,000-$54,999	80%-100%
MUGUCAXF	POINT MUGU	MUGU	VENTURA	Gateway	54<380	Large Metro	Y	0%-20%	$67,000-$87,999	40%-60%
MURTCAXF	MURRIETA	MURRIETA	RIVERSIDE	Inland	380<1700	Very Large	Y	-	$67,000-$87,999	60%-80%
NOVTCAXF	NOVATO	NOVATO	MARIN	Northern	54<380	Large Urban	N	-	$88,000 +	60%-80%
	NORWALK/NORWALK									
NRWLCAXF/NRWLCAXG	ALONDRA	NORWALK	LOS ANGELES	Coastal	>1700	Very Large	Y	0%-20%	$67,000-$87,999	40%-60%
NWPKCAXF	NEWBERRY	NEWBURY PARK	VENTURA	Gateway	380<1700	Very Large	Y	0%-20%	$88,000 +	60%-80%
OLNCCAXF	OLANCHA (OJAI)	OLANCHA	INYO	Gateway	0<6	Small	N	60%-80%	$43,000-$54,999	60%-80%
ONTRCAXF	ONTARIO	ONTARIO MAIN	SAN BERNARDINO	Inland	>1700	Very Large	Y	40%-60%	$55,000-$66,999	40%-60%
ORLNCAXF	ORLEANS	ORLEANS	HUMBOLDT	Northern	0<6	Small	N	0%-20%	$0-$42,999	60%-80%
OXNRCAXF	OXNARD	OXNARD	VENTURA	Gateway	>1700	Large Urban	Y	40%-60%	$55,000-$66,999	40%-60%
PACMCAXF	PACOIMA	PACOIMA	LOS ANGELES	Gateway	54<380	Very Large	Y	-	$55,000-$66,999	40%-60%
PCPLCAXF	PACIFIC PALISADES	PACIFIC PALISADES	LOS ANGELES	Beach Cities	380<1700	Large Urban	N	-	$88,000 +	80%-100%
PDRYCAXF	PLAYA DEL REY	DEL REY	LOS ANGELES	Beach Cities	>1700	Very Large	N	60%-80%	$88,000 +	60%-80%
PERSCAXF	PERRIS	PERRIS	RIVERSIDE	Inland	54<380	Very Large	Y	-	$55,000-$66,999	40%-60%
PHLNCAXF	PHELAN	PHELAN	SAN BERNARDINO	Desert	54<380	Large Metro	N	40%-60%	$43,000-$54,999	60%-80%
PIRCCAXF	PIERCY	PIERCY	MENDOCINO	Northern	0<6	Small	N	40%-60%	$43,000-$54,999	80%-100%
	PALM DESERT/THOUSAND									
PLDSCAXF/THPLCAXF	PALMS	PALM DESERT	RIVERSIDE	Desert	380<1700	Very Large	N	-	$55,000-$66,999	80%-100%
	PALM SPRINGS/RANCHO									
PLSPCAXG/RNMGCAXF	MIRAGE	PALM SPRINGS EAST	RIVERSIDE	Desert	54<380	Very Large	Y	80%-100%	$43,000-$54,999	60%-80%
PNCKCAXF	PINE CREEK	PINECREEK	INYO	Gateway	0<6	Small	N	20%-40%	$67,000-$87,999	80%-100%
PNYNCAXF	PINYON	PINYON	RIVERSIDE	Desert	0<6	Small	N	-	$55,000-$66,999	80%-100%
POMNCAXF	POMONA	POMONA	LOS ANGELES	Coastal	>1700	Very Large	Y	-	$55,000-$66,999	40%-60%
PRFDCAXF	PARKFIELD	PARKFIELD	MONTEREY	Gateway	0<6		N	20%-40%	$67,000-$87,999	80%-100%
RBNSCAXG	ROBBINS	ROBBINS	SUTTER	Northern	0<6	Small	N	0%-20%	$43,000-$54,999	60%-80%
	REDONDO/HERMOSA									
RDBHCAXF/HRBHCAXA/MNBHC	BEACH/MANHATTAN									
AXF/RLHLCAXF/TRNCCAXF/TR	ESTATES/TORRANCE/TORR									
NCCAXG	ANCE PALOS VERDES	EL NIDO	LOS ANGELES	Beach Cities	>1700	Very Large	Y	60%-80%	$88,000 +	40%-60%
RDGCCAXG	RIDGECREST	RIDGECREST	KERN	Gateway	6<54	Large Metro	N	40%-60%	$43,000-$54,999	80%-100%
RDLDCAXF/LMLNCAXF	REDLANDS/LOMA LINDA	REDLANDS	SAN BERNARDINO	Desert	380<1700	Very Large	Y	80%-100%	$67,000-$87,999	60%-80%
RDLYCAXF	REEDLEY	REEDLEY	FRESNO	Northern	54<380	Large Metro	N	0%-20%	$43,000-$54,999	40%-60%
RIPNCAXF	RIPON	RIPON	SAN JOAQUIN	Northern	54<380	Large Metro	N	0%-20%	$67,000-$87,999	60%-80%
RNBGCAXF	RANDSBURG	RANDSBURG	KERN	Gateway	0<6	Small	N	40%-60%	$55,000-$66,999	80%-100%
RNSPCAXF	RUNNING SPRINGS	RUNNING SPRINGS	SAN BERNARDINO	Desert	54<380	Medium	N	20%-40%	$67,000-$87,999	60%-80%
SERNCAXG	SEA RANCH	SEA RANCH	SONOMA	Northern	54<380	Medium	N	0%-20%	$55,000-$66,999	80%-100%
SLBHCAXF	SEAL BEACH (ALAMITOS)	ALAMITOS	ORANGE	Beach Cities	380<1700	Very Large	N	-	$88,000 +	60%-80%
SLCYCAXF	SALTON CITY	SALTON CITY	IMPERIAL	Desert	6<54	Small	N	60%-80%	$0-$42,999	60%-80%
SLVNCAXG	SOLVANG (SANTA YNEZ)	SANTA YNEZ	SANTA BARBARA	Gateway	6<54	Large Urban	N	-	$67,000-$87,999	80%-100%
SNBBCAXF/SNBBCAXG/GOLTC	SANTA BARBARA/									
AXF/MNTTCAXF	GOLETO/MONTECITO	SANTA BARBARA	SANTA BARBARA	Gateway	>1700	Very Large	N	60%-80%	$67,000-$87,999	60%-80%
SNBRCAXH/MSCYCAXF	MARSHALL/MUSCOY	MARSHALL	SAN BERNARDINO	Desert	380<1700	Large Urban	N	60%-80%	$43,000-$54,999	40%-60%
SNBRCAXK	SAN BERNARDINO	SAN BERNARDINO	SAN BERNARDINO	Desert	>1700	Very Large	N	-	$0-$42,999	40%-60%
SNCYCAXF/QUVYCAXF	SUN CITY/QUAIL VALLEY	SUN CITY	RIVERSIDE	Inland	380<1700	Very Large	Y	-	$67,000-$87,999	60%-80%
	SAN FERNANDO (SNFN									
SNFNCAXG	SNFN)	SAN FERNANDO	LOS ANGELES	Gateway	>1700	Large Urban	N	40%-60%	$55,000-$66,999	40%-60%
SNGRCAXF	SANGER	SANGER	FRESNO	Northern	54<380	Large Metro	N	20%-40%	$67,000-$87,999	60%-80%
SNJCCAXG	SAN JACINTO	SAN JACINTO	RIVERSIDE	Inland	54<380	Large Urban	Y	80%-100%	$43,000-$54,999	60%-80%

Table 4F.14: WIRE CENTER ATTRIBUTE CLASSIFICATIONS (continued)

CLLI	Reporting Units (Phase II)	Reporting Unit (Phase I)	County	Operating Area	Density Category	Wire Center Size	FTTP / FiOS	FTR Line Loss Category	Income Category	Race Category
SNJQCAXF/TRNQCAXF	SAN JOAQUIN/ TRANQUILLITY	SAN JOAQUIN	FRESNO	Northern	6<54	Small	N	40%-60%	$0-$42,999	40%-60%
SNLDCAXF	SUNLD TJNG	SUNLAND/TUJUNGA	LOS ANGELES	Gateway	380<1700	Large Urban	N	80%-100%	$67,000-$87,999	60%-80%
SNMGCAXF	SAN MIGUEL	SAN MIGUEL	MONTEREY	Gateway	0<6	Medium	N	40%-60%	$67,000-$87,999	80%-100%
SNMNCAXG	SANTA MONICA	SANTA MONICA	LOS ANGELES	Beach Cities	>1700	Very Large	Y	-	$88,000 +	80%-100%
SNNGCAXG	SNELLING	SNELLING	MERCED	Northern	0<6	Small	N	20%-40%	$43,000-$54,999	60%-80%
SNPLCAXF	SANTA PAULA	SANTA PAULA	VENTURA	Gateway	54<380	Large Metro	N	20%-40%	$55,000-$66,999	60%-80%
SNTMCAXF	SANTA MARIA/ORCUTT	SANTA MARIA	SANTA BARBARA	Gateway	380<1700	Very Large	Y	40%-60%	$55,000-$66,999	40%-60%
LNCSCAXF/EDMTCAXF/SNYMCAXF	MORENO/EDGEMONT/SUNMEAD	SUNNYMEAD	RIVERSIDE	Inland	380<1700	Very Large	N	20%-40%	$67,000-$87,999	40%-60%
SPLVCAXF	SEPULVEDA	SEPULVEDA	LOS ANGELES	Gateway	>1700	Very Large	N	80%-100%	$67,000-$87,999	40%-60%
SPLVCAXF1	SEPULVEDA 1								$88,000 +	
SPLVCAXF2	SEPULVEDA 2								$88,000 +	
SPLVCAXF3	SEPULVEDA 3								$88,000 +	
SRMDCAXF/PSDNCAXF	SIERRA MADRE/PASADENA	SIERRA MADRE	LOS ANGELES	Coastal	>1700	Large Metro	N	-	$88,000 +	60%-80%
SVYFCAXF	SQUAW VALLEY	SQUAW VALLEY	FRESNO	Northern	6<54	Small	N	0%-20%	$67,000-$87,999	80%-100%
SYLMCAXF	SYLMAR	SYLMAR	LOS ANGELES	Gateway	380<1700	Large Urban	N	80%-100%	$67,000-$87,999	40%-60%
TAFTCAXF/FLWSCAXF/MRCPCAXF	TAFT/FELLOW/S/MARICOPA	TAFT	KERN	Northern	6<54	Large Metro	N	0%-20%	$55,000-$66,999	60%-80%
THOKCAXF	THOUSAND OAKS	THOUSAND OAKS 2	VENTURA	Gateway	380<1700	Very Large	Y	80%-100%	$88,000 +	80%-100%
THOKCAXH	THOUSAND OAKS(CONEJO) TEMECULA/RANCHO	CONEJO	VENTURA	Gateway	380<1700	Large Urban	Y	20%-40%	$88,000 +	80%-100%
TMCLCAXG/RNCACAXF	CALIFORNIA	TEMECULA	RIVERSIDE	Inland	380<1700	Large Metro	Y	-	$67,000-$87,999	60%-80%
TMCVCAXH	TIMBER COVE	TIMBER COVE	SONOMA	Northern	0<6	Small	N	40%-60%	$55,000-$66,999	80%-100%
TPNGCAXF	TOPANGA	TOPANGA	LOS ANGELES	Gateway	54<380	Medium	N	0%-20%	$88,000 +	80%-100%
TRONCAXF	TRONA	TRONA	SAN BERNARDINO	Gateway	0<6	Small	N	-	$43,000-$54,999	60%-80%
TVYYCAXF	TIVY VALLEY	TIVY VALLEY	FRESNO	Northern	6<54	Medium	N	-	$67,000-$87,999	60%-80%
TWPLCAXF/TWPLCAXG/DSHGCAXF	TWENTYNINE PALMS/MARINE BASE/DESERT HEIGHTS	TWENTYNINE PALMS	SAN BERNARDINO	Desert	6<54	Large Metro	N	60%-80%	$0-$42,999	60%-80%
UPLDCAXF	UPLAND	UPLAND	SAN BERNARDINO	Inland	380<1700	Very Large	Y	0%-20%	$67,000-$87,999	60%-80%
VTVLCAXA/HNDLCAXF	VICTORVILLE/HELENDALE-SILVER LAKES	VICTORVILLE	SAN BERNARDINO	Desert	54<380	Very Large	Y	-	$55,000-$66,999	40%-60%
WEMRCAXF	WEIMAR	WEIMAR	PLACER	Northern	54<380	Medium	N	20%-40%	$55,000-$66,999	80%-100%
WHTNCAXF	WHITEHORN	WHITEHORN	HUMBOLDT	Northern	0<6	Medium	N	0%-20%	$43,000-$54,999	80%-100%
WHTRCAXF	WHITTIER	WHITTIER SOUTH	LOS ANGELES	Coastal	>1700	Very Large	Y	-	$67,000-$87,999	40%-60%
WHTRCAXJ	PICO RIVERA	PICO	LOS ANGELES	Coastal	380<1700	Large Urban	Y	40%-60%	$67,000-$87,999	40%-60%
WLANCAXF	WEST LOS ANGELES	WEST LOS ANGELES	LOS ANGELES	Beach Cities	>1700	-	N	-	$67,000-$87,999	60%-80%
WLDNCAXF	SUMMIT VLY	WELDON	KERN	Gateway	0<6	Medium	N	-	$43,000-$54,999	80%-100%
WLNTCAXF	WALNUT	WALNUT	LOS ANGELES	Coastal	380<1700	Very Large	Y	40%-60%	$88,000 +	20%-40%
WMNSCAXF	WESTMINSTER	WESTMINSTER	ORANGE	Beach Cities	>1700	Very Large	Y	-	$67,000-$87,999	40%-60%
WRWDCAXF	WRIGHTWOOD	WRIGHTWOOD	SAN BERNARDINO	Desert	6<54	Medium	N	-	$55,000-$66,999	80%-100%
WVVLCAXG	WEAVERVILLE	WEAVERVILLE	TRINITY	Northern	6<54	Large Metro	N	0%-20%	$0-$42,999	80%-100%
WWCKCAXF	WILLOW CRK	WILLOW CREEK	HUMBOLDT	Northern	0<6	Medium	N	-	$0-$42,999	40%-60%
YCVYCAXG	YUCCA VALLEY	YUCCA VALLEY	SAN BERNARDINO	Desert	54<380	Large Metro	N	20%-40%	$0-$42,999	80%-100%
YERMCAXF	BRSW YERM/YERMO	YERMO	SAN BERNARDINO	Desert	0<6	Small	N	-	$55,000-$66,999	60%-80%

We have prepared a set of four (4) graphs for each of the five category dimensions that correspond to Frontier Companywide graphs provided above. Table 4F.15 below provides an index to the figures provided for each set of attributes.

Table 4F.15

SUMMARY OF FRONTIER ATTRIBUTE DIMENSION GRAPHS

	Company wide	Broadband	Wire Center Size	POTS Line Loss	Density	OPA
OOS per 100 Access Lines	Fig. 4F.3	Fig. 4F.14	Fig. 4F.18	Fig. 4F.22	Fig. 4F.26	Fig. 4F.30
Avg OOS>24 hrs Duration	Fig. 4F.7, 9	Fig. 4F.15	Fig. 4F.19	Fig. 4F.23	Fig. 4F.27	Fig. 4F.31
Pct OOS cleared in 24 hrs	Fig. 4F.10, 11	Fig. 4F.16	Fig. 4F.20	Fig. 4F.24	Fig. 4F.28	Fig. 4F.32
Days required to clear 90%	Fig. 4F.12, 13	Fig. 4F.17	Fig. 4F.21	Fig. 4F.25	Fig. 4F.29	Fig. 4F.33

Wire Centers that had been upgraded to FTTP

Although this study and GO-133-C/D are primarily focused upon traditional circuit-switched POTS services, the fact that a particular wire center has been upgraded with a Fiber-to-the-Premises ("FTTP") distribution infrastructure enabling it to support *FiOS* broadband services is an indication that, prior to its sale of the company to Frontier, Verizon had undertaken to invest in and to upgrade the central office and outside plant facilities therein. Following the transfer, Frontier has also upgraded some non-*FiOS* wire centers for broadband services, albeit on a limited basis. *FiOS* branded services include high-speed Internet access, digital IPTV, and VoIP telephone services. These services require the replacement of the copper loop and drop segments with fiber.[34]

In Chapter 3 of our Phase 1 Report, we noted that the overwhelming majority of the central office switches that provide POTS services are quite old, in some cases twenty to thirty years old. These switches have, for the most part, remained in service and continue to proide legacy circuit-switched voice telephone service. The switch upgrades that have occurred in the 2010-2017 time frame were primarily aimed at supporting or expanding the scope of packet-switched services such as VoIP and high-speed Internet access in the residential/small business market or advanced high-capacity services to enterprise and government customers. Recent outside plant upgrades made primarily to support advanced services will often confer a direct service quality benefit to legacy POTS customers as these customers are migrated to the new distribution architecture. But however these new plant upgrades and acquisitions are being utilized, there is a reasonable expectation that some overall improvement in POTS service quality should result. To test this hypothesis, ETI deemed the presence of *FiOS*-capable FTTP plant in a given wire center as an indicator that the ILEC had upgraded its central office and/or outside plant facilities overall.

34. *See*, e.g., Verizon, "Verizon FiOS – See the Light," available at http://thevillagecondos.com/Projects/VerizonFIOS/MDUPortfolio.pdf (accessed 1/24/19).

As of the April 1, 2016 acquisition date, and as summarized on Table 4F.16 below, just under two-thirds of Frontier California's POTS customers were being served out of wire centers that had been upgraded to offer *FiOS*.[35]

Table 4F.16

FRONTIER CALIFORNIA

CLASSIFICATIONS OF WIRE CENTERS AND REPORTING UNITS WITH AND WITHOUT FTTP UPGRADES AS OF APRIL 2016

FTTP	Frontier Reporting Units	Frontier Access Lines	Pct of Access Lines
Yes	66	786,817	64.66%
No	123	430,012	34.34%
TOTAL	189	1,216,829	100.00%

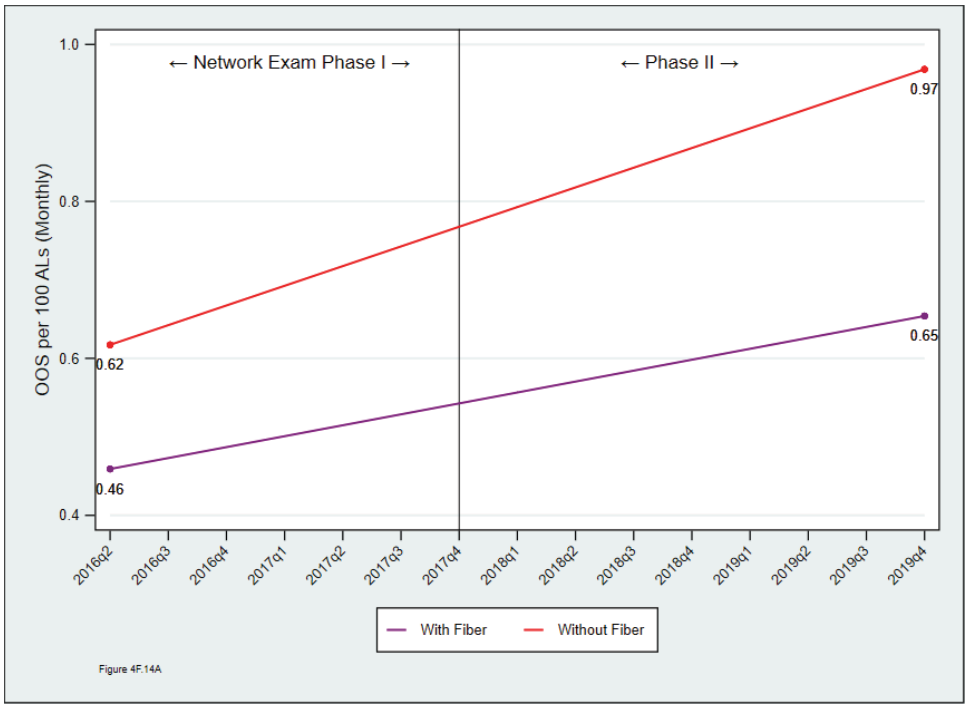
NOTE: Access line counts are as of the April 1, 2016 acquisition date and are approximate

Using FTTP availability as a surrogate for specific data on capital investment in each wire center, we determined that, as with AT&T, the presence of *FiOS* availability in any given wire center has had a positive impact upon POTS service quality being furnished out of that same building – specifically, on the incidence of OOS situations, their duration, and the extent to which the 90% cleared within 24 hours standard had been achieved. This examination has now been updated to nclude Frontier service quality data through December 2019 as well as to reclassify any additional wire centers that have been upgraded with FTTP facilities since the Phase 1 Study was completed. These results are shown in updated Figures 4F.14, 4F.15, 4F.16 and 4F.17 below. In general, wire centers that were upgraded to FTTP performed noticeably better on all OOS metrics than those for which no such upgrade investment had been made. In upgraded wire centers, the number of POTS out-of-service incidents per 100 lines in service was lower; their average duration was decidedly shorter, and the percentage of outages cleared within 24 hours was decidedly higher than in offices without broadband.

The superior service quality performance of fiber-equipped wire centers has persisted under Frontier ownership. In the immediate post-transfer time period (2Q2016 to 4Q2017), Frontier fiber-equipped wire centers showed improvements in the duration-related metrics -- in particular, the percent cleared within 24 hours and the days required to clear 90% showed noticeable improvement. However, after 2017, all of the performance metrics deteriorated, but locations with fiber continued to out-perform those where no such upgrades had taken place.

35. Frontier response to DR05-F-5, "DR 5 Attachment 4_Confidential.xlsx"; Frontier response to DR 13-F-2, "Att. 13-F-2 16-17 Line Count 11-F-7 format [CONFIDENTIAL].xlsx"

Wire centers upgraded with Fiber-to-the-Premises ("FTTP") capable of providing *FiOS* broadband services have continued to achieve better service quality performance scores in virtually every category than those without such upgrades. But Frontier lost ground in all of these metrics both in upgraded and non-upgraded wire centers over the 2018-2019 period.



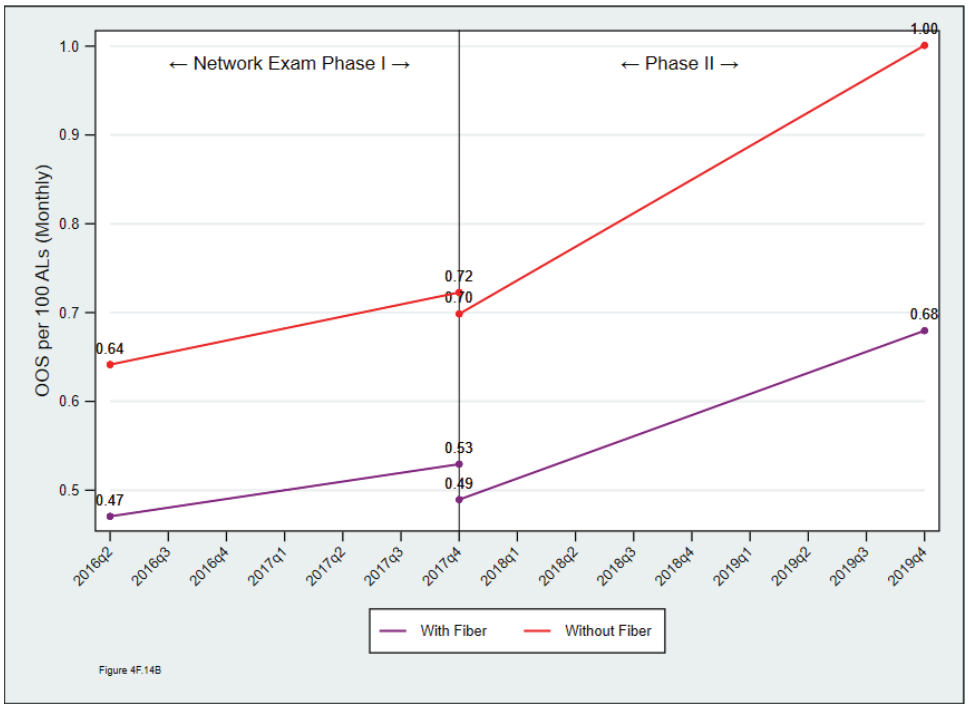
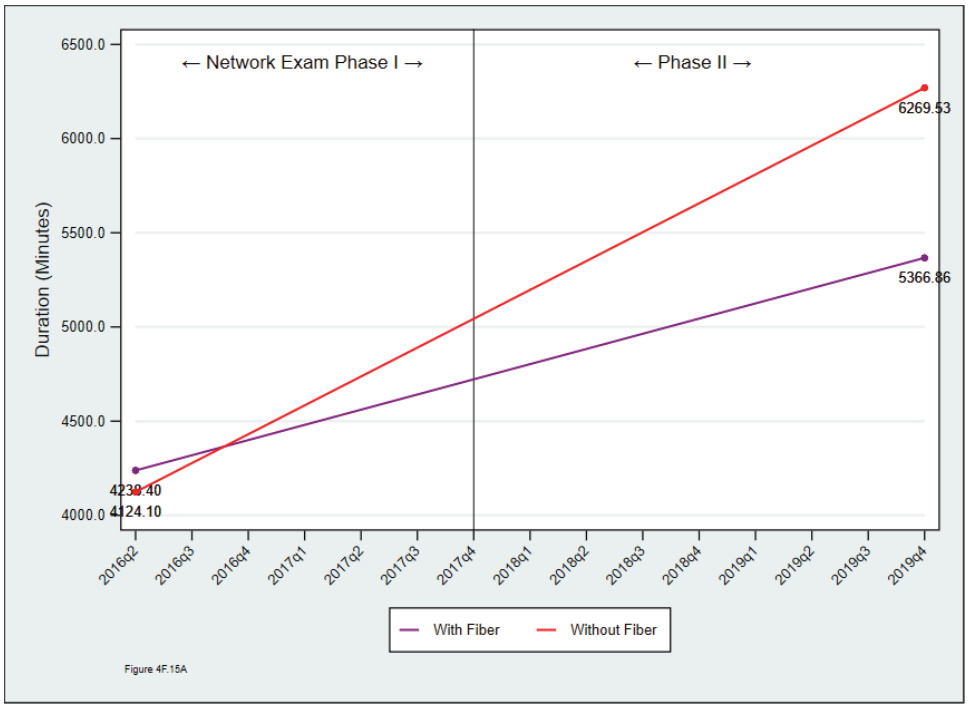


Figure 4F.14. There have been fewer out-of-service conditions per 100 access lines in wire centers with FTTP upgrades, but both categories have seen increases in OOS rates over the 2018-2019 period.



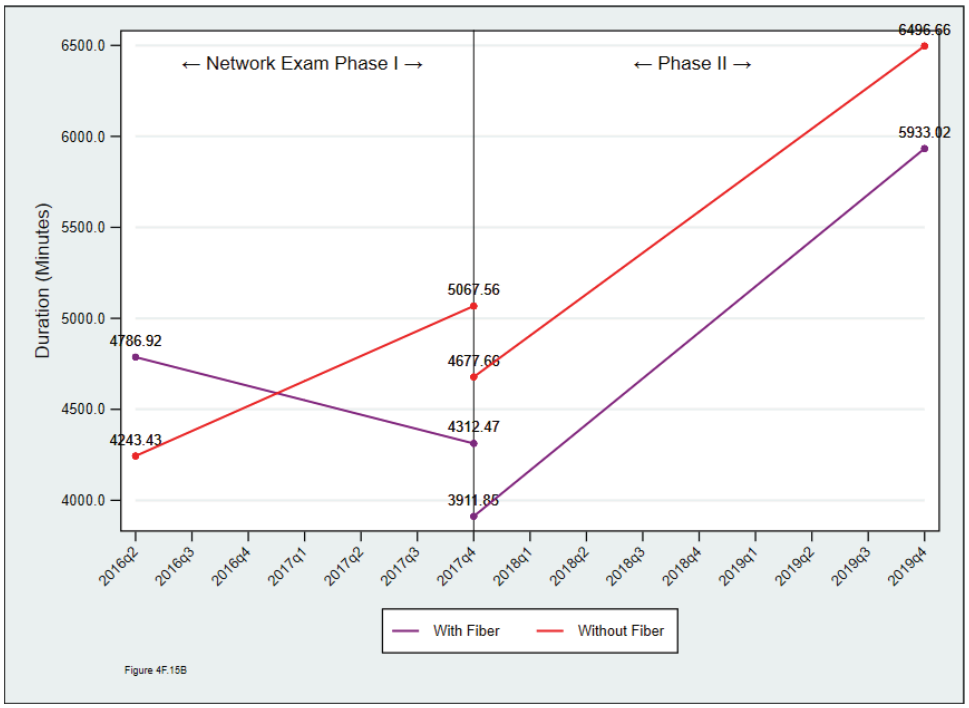
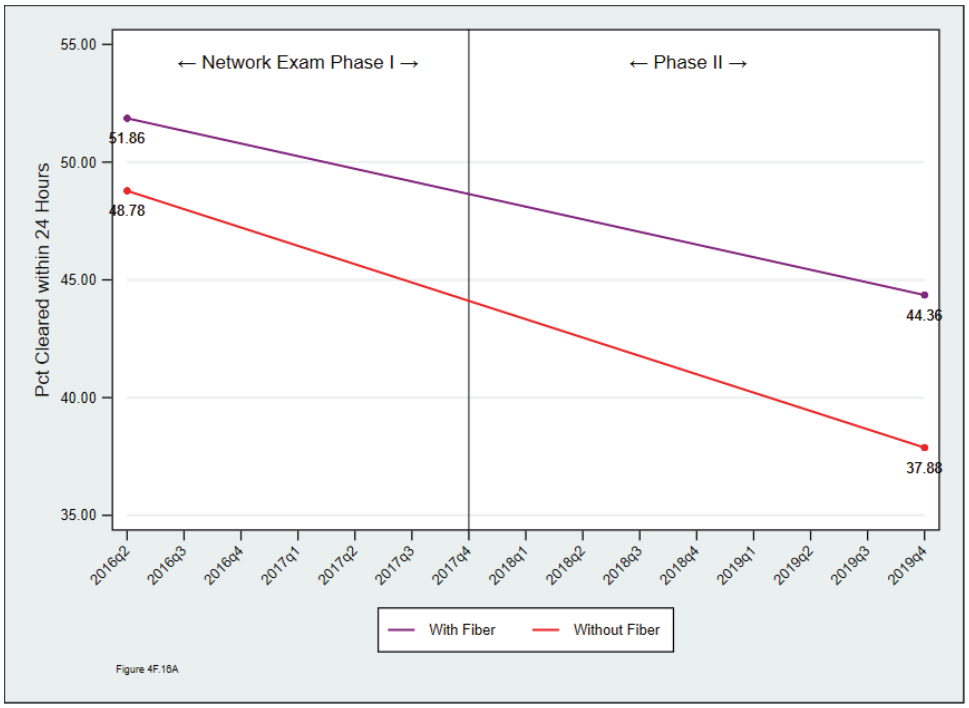


Figure 4F.15. Service outages are shorter in wire centers that have received FTTP upgrades, but following some improvement in FTTP offices following Frontier's takeover, durations have been on the rise in both categories over the 2018-2019 period.



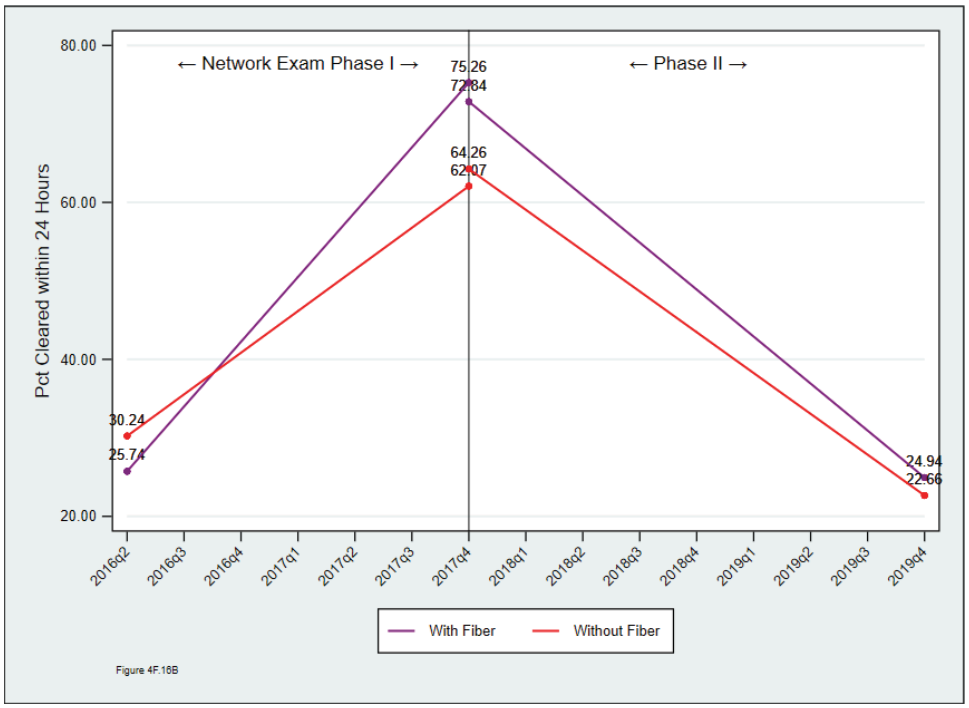
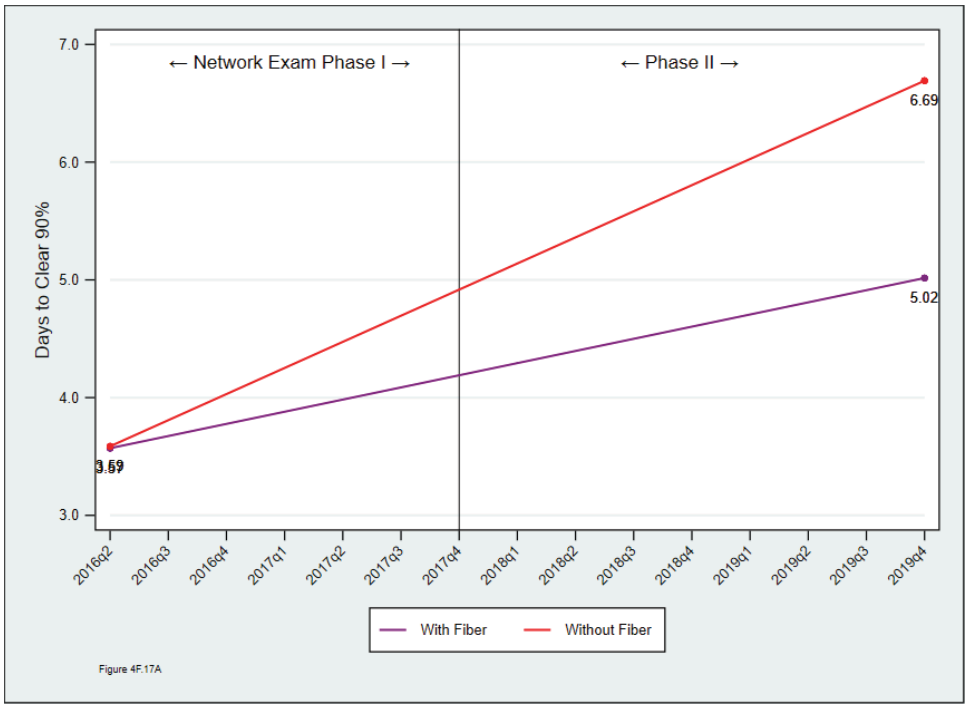


Figure 4F.16. FTTP-upgraded wire centers clear a higher percentage of out-of-service conditions within 24 hours, but following improvement in both categories following Frontier's takeover, the percent cleared within 24 hours has been falling in both categories over the 2018-2019 period.



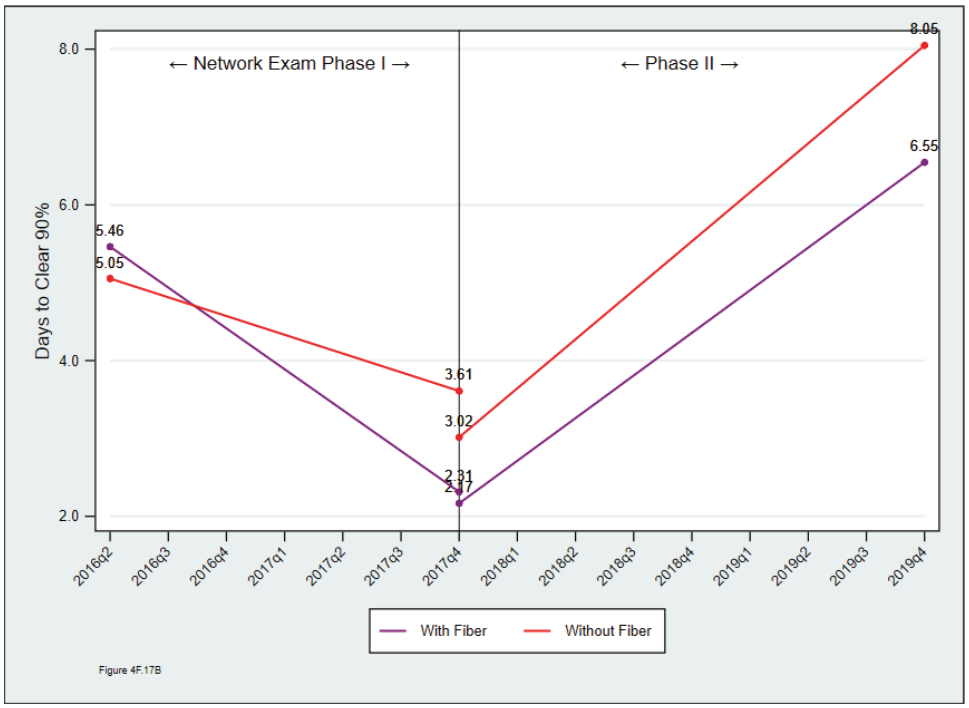


Figure 4F.17. The number of days needed to clear 90% of service outages in shorter in FTTP-upgraded wire centers, but following improvement in both categories following Frontier's takeover, the days needed to clear 90% has been increasing in both categories over the 2018-2019 period.

Wire Center Size

As with our analysis of the AT&T data, we expanded the list of wire center size categories from the three specified in GO 133-C/D (Small (1000 or fewer POTS lines), Medium (1001-2999 lines), and Large (3000 or more lines)[36]) to the same five categories that we used for AT&T, splitting Large into Large Metro, Large Urban, and Very Large. Table 4F.17 below indicates the number of Frontier wire center reporting units falling in each of these five size categories as of April 1, 2016, when ownership was transferred to Frontier.

Table 4F.17

FRONTIER CALIFORNIA

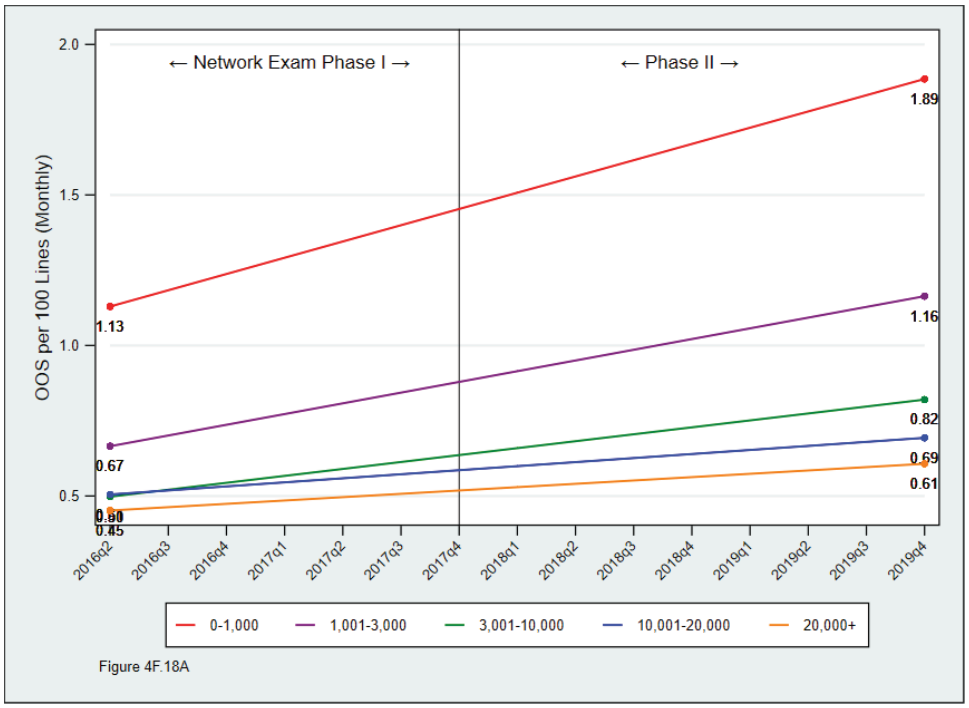
CLASSIFICATIONS OF WIRE CENTERS AND REPORTING UNITS BY POTS LINES IN SERVICE AS OF APRIL 2016

POTS Line range	Category	Frontier Reporting Units	Frontier Access lines
1,000 or fewer	Small	81	30,422
1,001 - 2,999	Medium	29	51,011
3,000 - 9,999	Large	45	269,117
10,000 - 19,999	Large Urban	27	378,236
20,000 and above	Large Metro	16	472,432
TOTAL		198	1,201,218

Wire centers in all five size ranges generally lost ground in all of the performance metrics over the combined Phase 1/2 study period. Gains that had occurred in the immediate post-acquisition time frame were reversed in 2018-2019. Although the ranking is not precise, in general the larger wire centers experienced the fewest service outages per 100 access lines and, for those outages that did occur, the shortest durations and highest clearance within 24 hours percentages overall.

The strong relationship between the number of POTS lines in a wire center and the quality of service provided that we had identified in Phase 1 has generally persisted into Phase 2.

36. GO 133-C/D, at §3.3(c).



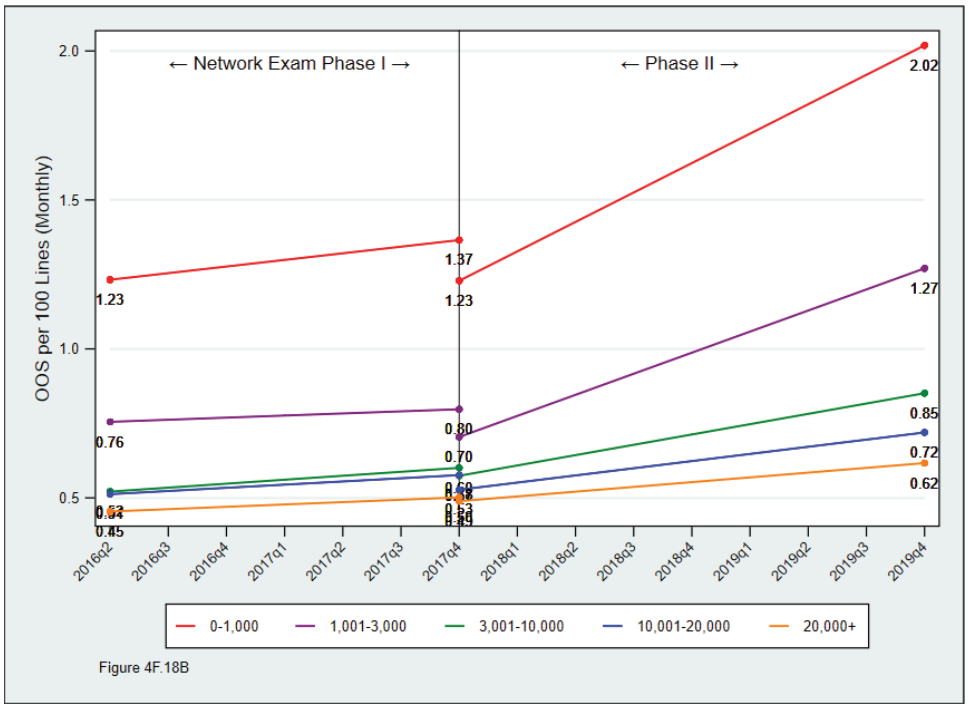
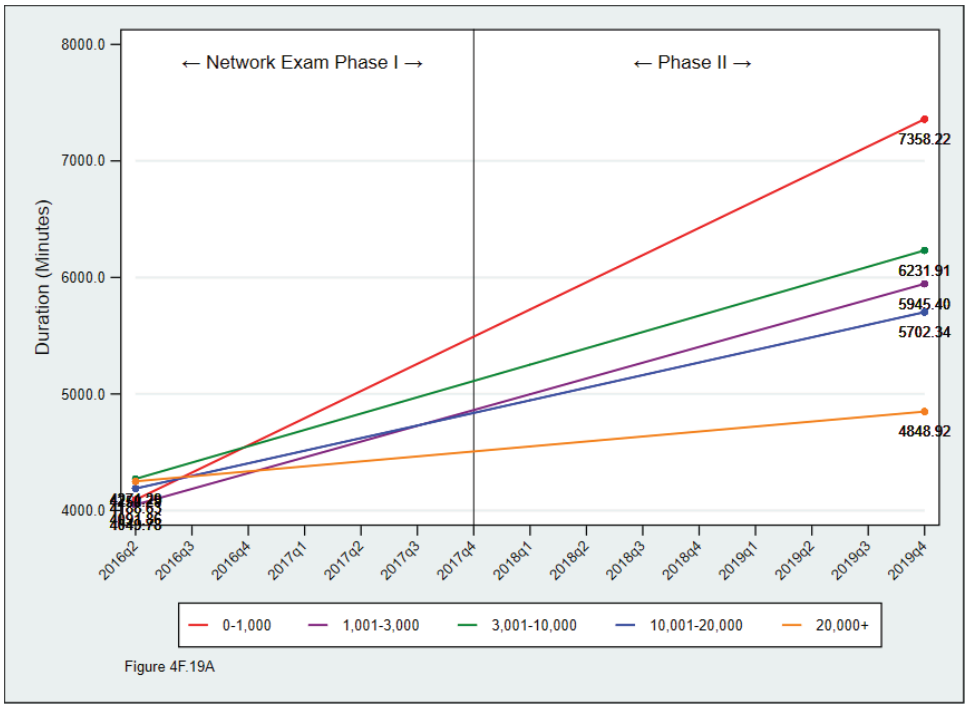


Figure 4F.18. The largest wire centers exhibit the fewest number of out-of-service conditions per 100 access lines, but wire centers in all size categories have seen increases in OOS rates over the 2018-2019 period.



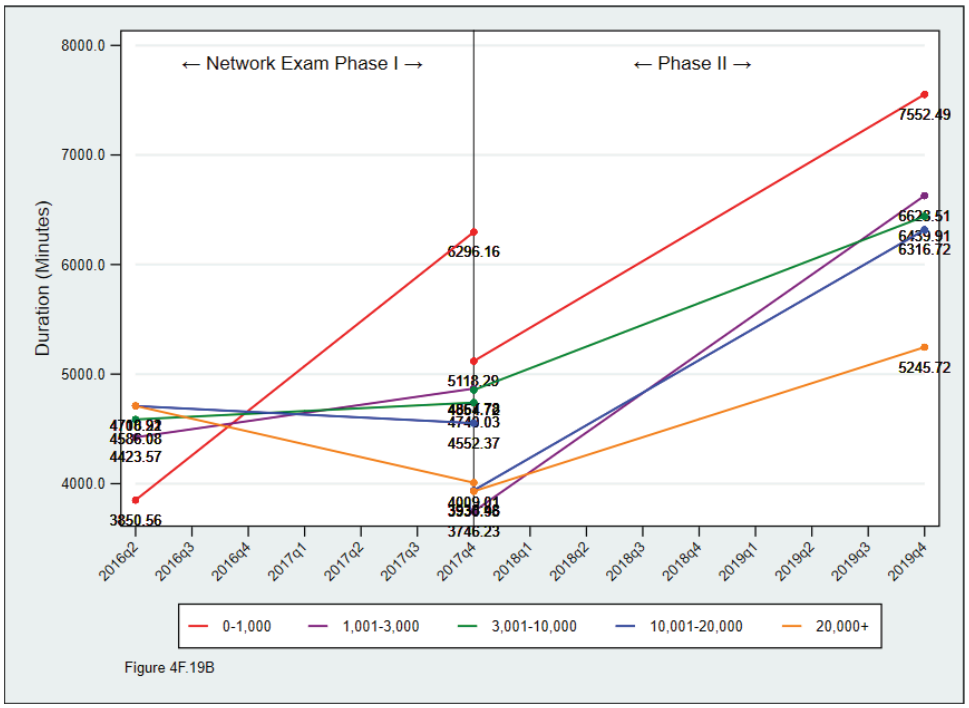


Figure 4F.19. Service outages continued to have shorter durations in larger wire centers following Frontier's takeover, but wire centers in all size categories have taken longer to clear over the 2018-2019 period.

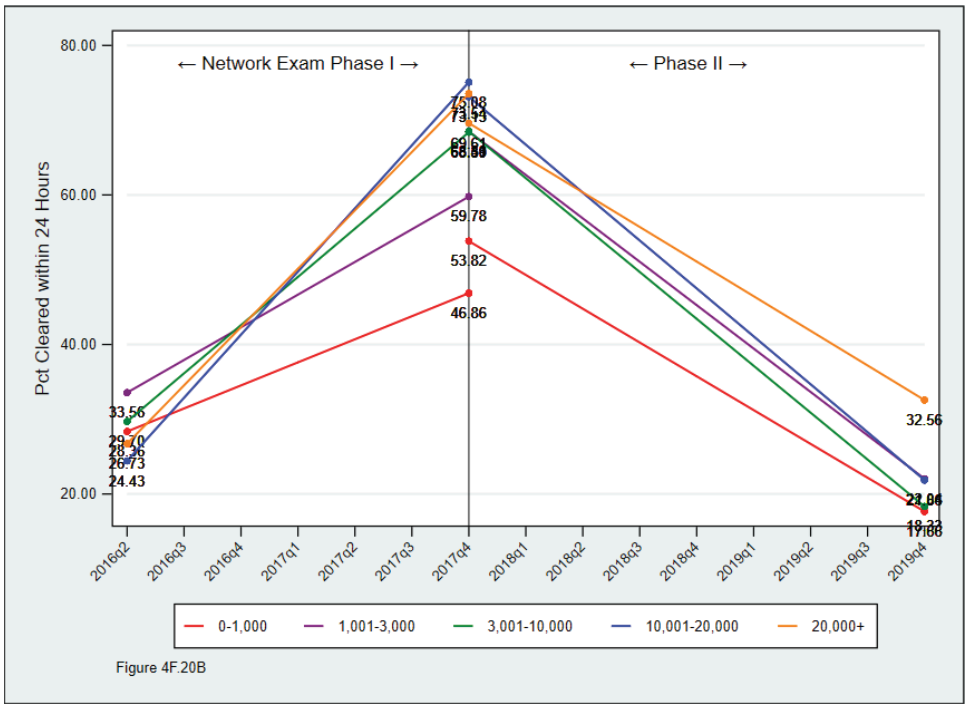
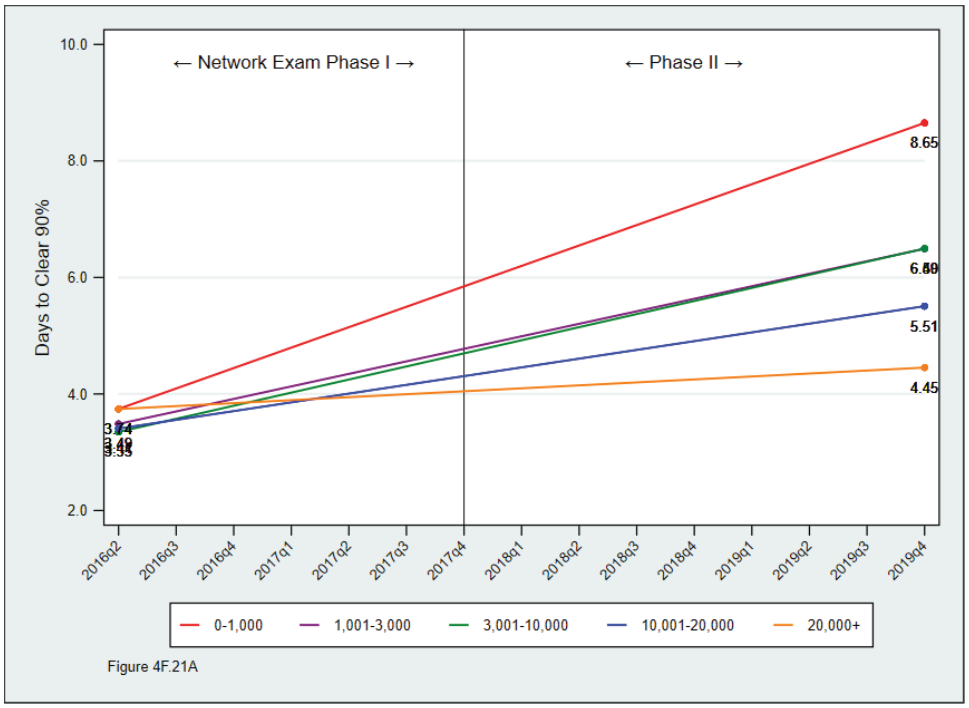


Figure 4F.20. The largest wire centers tended to clear a higher percentage of out-of-service conditions within 24 hours, but following improvement in all size categories following Frontier's takeover, the percent cleared within 24 hours has been falling in all size categories over the 2018-2019 period.



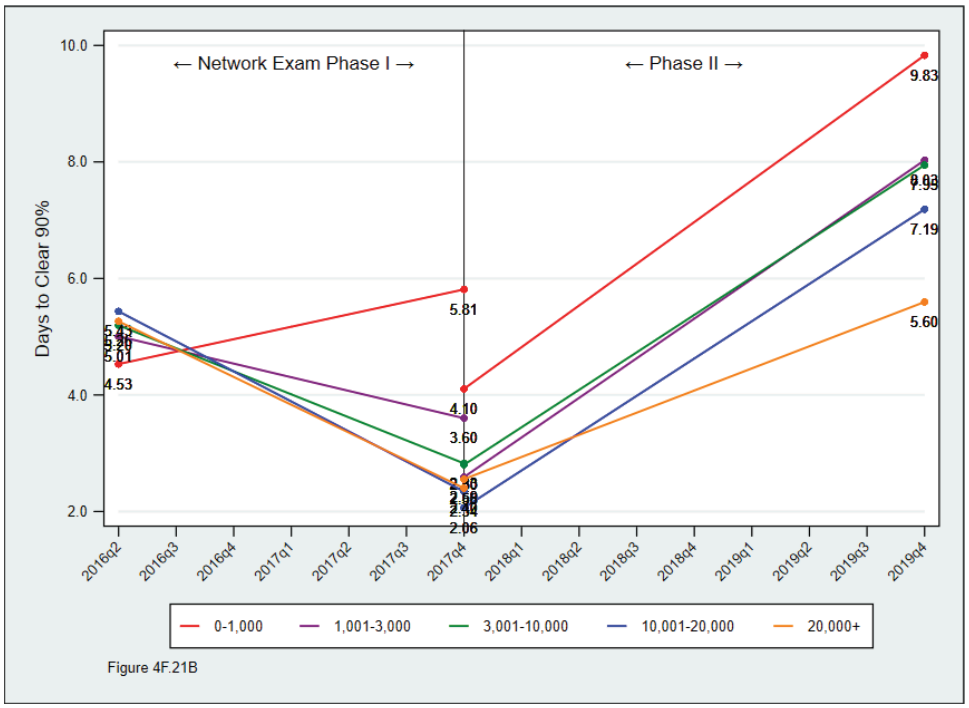


Figure 4F.21. The number of days needed to clear 90% of service outages is shortest in the largest wire centers and had been improving in all but the two smallest size categories following the Frontier takeover, but has been increasing in all size categories over the 2018-2019 period.

Access Line Loss

Table 4F.1 and Figure 4F.1, above, trace Frontier California POTS lines in service over the full 2Q2016-4Q2019 period of Frontier ownership. Companywide, Frontier California experienced a net loss of 628,243 of its POTS access lines, going from 1,201,218 on April 1, 2016 to only 572,975 as of December 2019, a 52.3% drop-off. These POTS losses were offset to some extent by the growth in interconnected VoIP access lines. According to Frontier's August 7, 2020 Response to CD Data Request 13-F-3, Frontier California had [redacted] residential VoIP lines in service as of the April 1, 2016 acquisition date; by December 31, 2019, that number had been cut in half, to only [redacted].[37] However, as shown in Chapter 4 Figure 4.4 for all wireline carriers statewide, the gain in VoIP lines, while offsetting to some extent the ILECs' POTS losses, certainly did not come even close to fully replace the drop in POTS demand.

In Table 4F.18 below, we have assigned each Frontier wire center reporting unit into one of five (5) Access Line Loss categories over the period 2Q2016 through 4Q2019.

Table 4F.18

FRONTIER CALIFORNIA

CLASSIFICATIONS OF WIRE CENTERS BY POTS LINE LOSS PERCENTAGE (quintiles)

Quintile	POTS Loss range	Frontier Reporting Units
< 20%	< 42%	40
21%-40%	42% - 48%	39
41%-60%	48% - 52%	40
61%-80%	52% - 56%	39
> 80%	> 56%	40
TOTAL		198

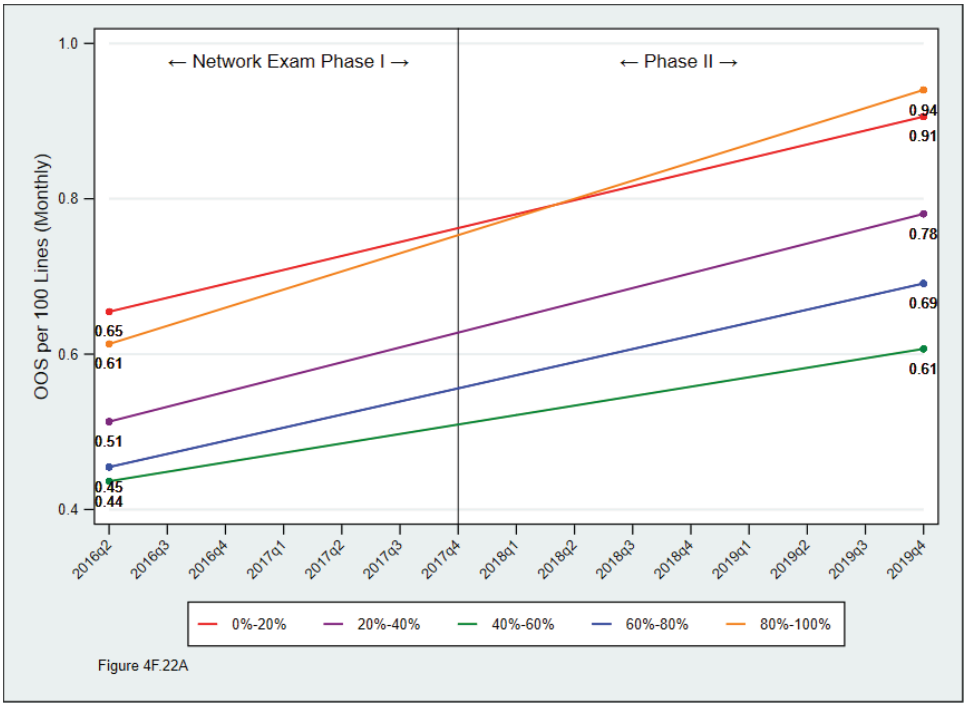
Those wire centers and reporting units exhibiting the greatest percentage loss of POTS lines over the study period – exceeding 56% for Frontier – experienced some improvement both in the number of OOS incidents and in their duration until cleared. Wire centers and reporting units experiencing the smallest losses fared far worse in terms of most metrics. One might infer that

37. Frontier California Response to CD Data Request 13-f-3, "Att. 13-F-3 VoIP Line Count (CONFIDENTIAL).xlsx"

these low-loss wire centers and reporting units serve areas with the fewest competitive alternatives (hence explaining the relatively small losses), suggesting that Verizon has devoted more of its resources and efforts to those communities most impacted by competition for traditional POTS services.

ETI has prepared a set of analyses of the various service quality performance metrics organized by wire centers and reporting units falling into each of the various categories associated with each of these five sets of classifications. Perhaps ironically, those wire centers that had experienced the largest percentage drop-off in POTS demand generally exhibited superior performance on nearly all of the service quality metrics under examination, as shown in Figures 4F.22 through 4F.25 below. As we noted in our Phase 1 Report, it would appear that the wire centers experiencing the largest line loss percentages also happen to be those with the largest number of access lines, which happen to be the ones with the best service quality performance overall.:

The largest increases in service outages occurred in wire centers with the lowest POTS drop-off rates; the incidence of service outages increased more slowly or remained almost constant in wire centers with successively larger drop-off rates.



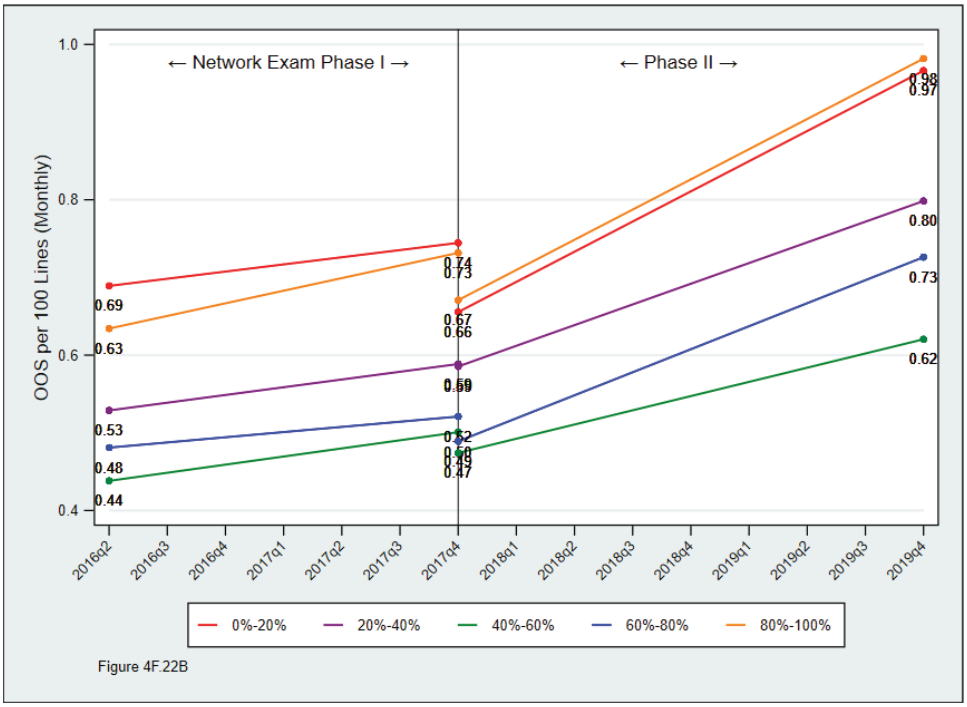
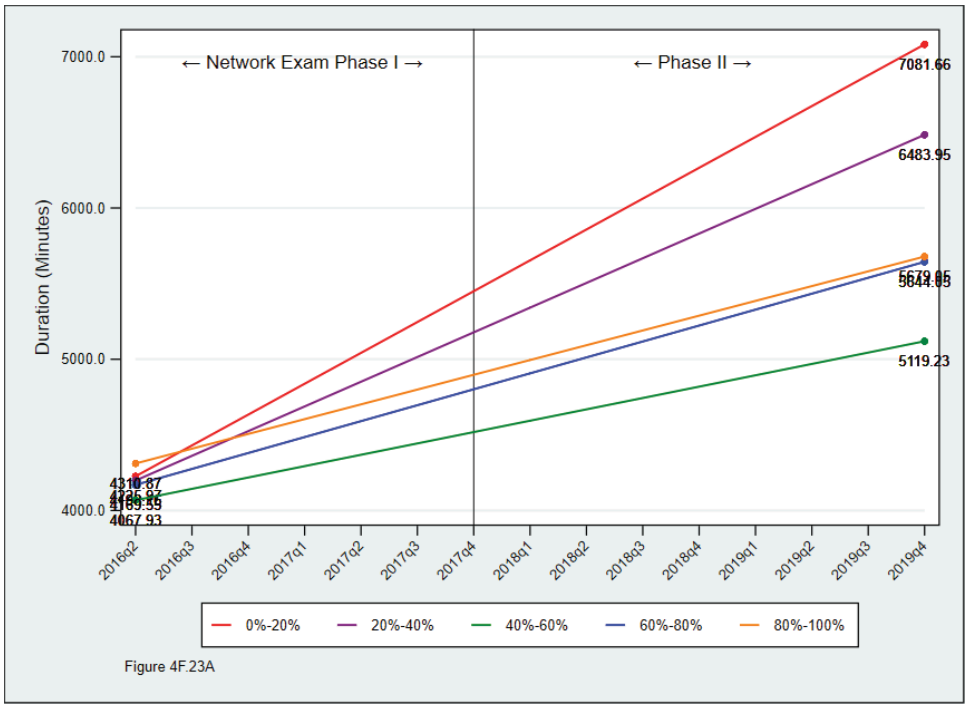


Figure 4F.22. Wire centers that had experienced the greatest drop-off in demand for POTS services generally exhibited the fewest number of out-of-service conditions per 100 access lines, but that number has been increasing in all line loss categories over the 2018-2019 period.



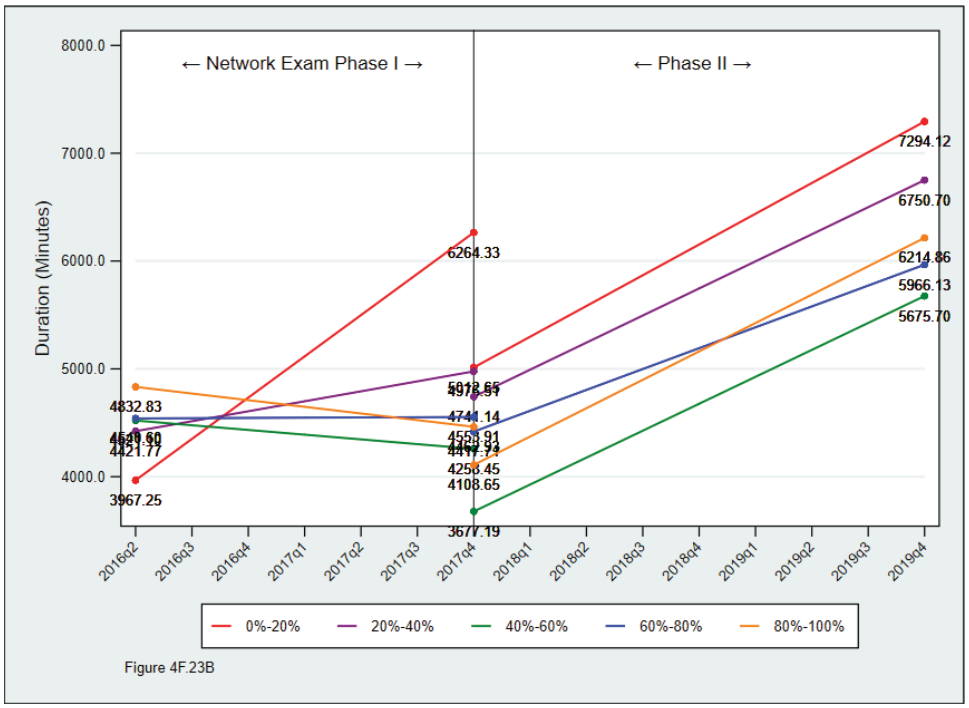


Figure 4F.23. Service outages tended to be shortest in wire centers that had experienced the greatest drop-off in demand for POTS, but durations have been on the rise in all line loss categories over the 2018-2019 period.

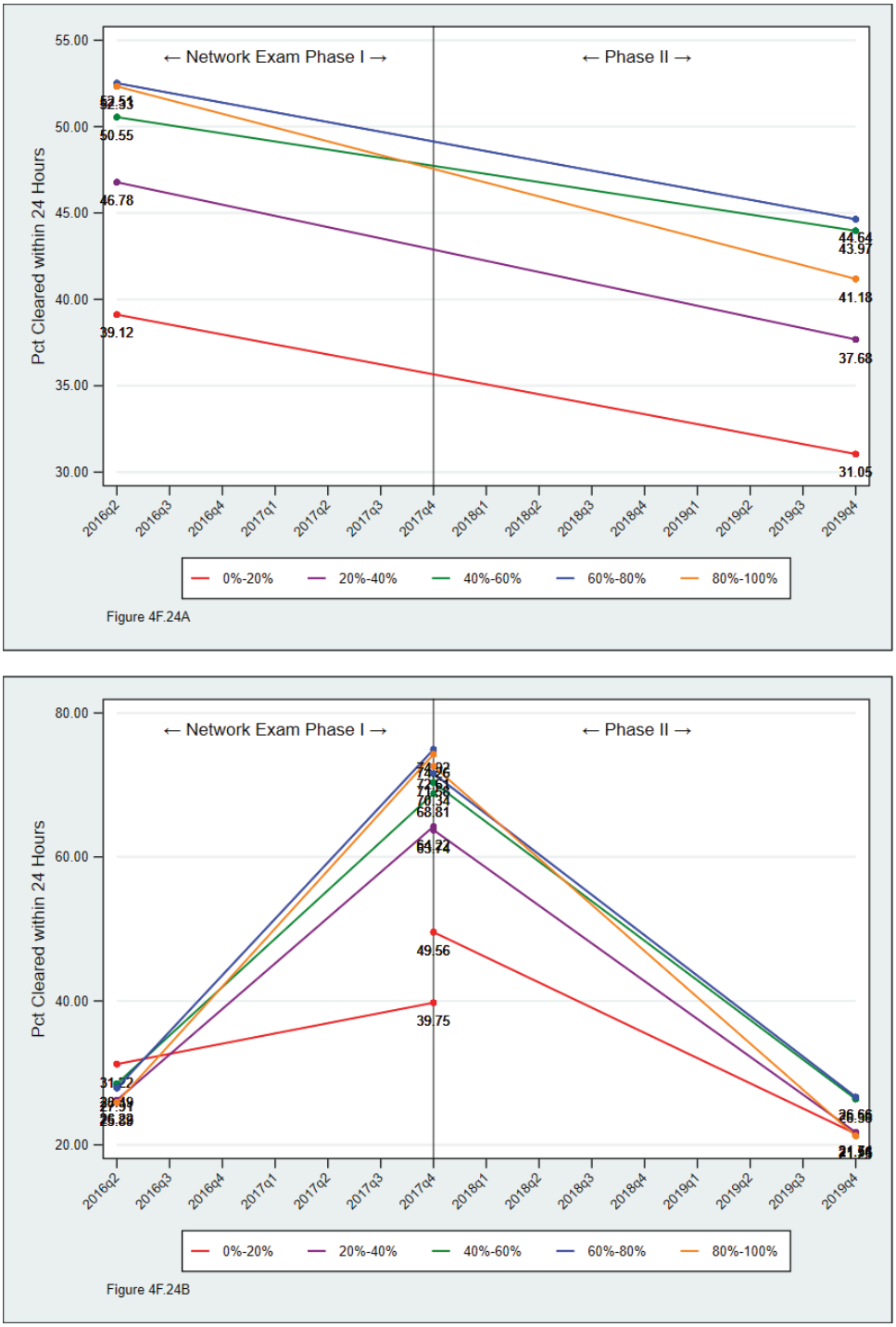
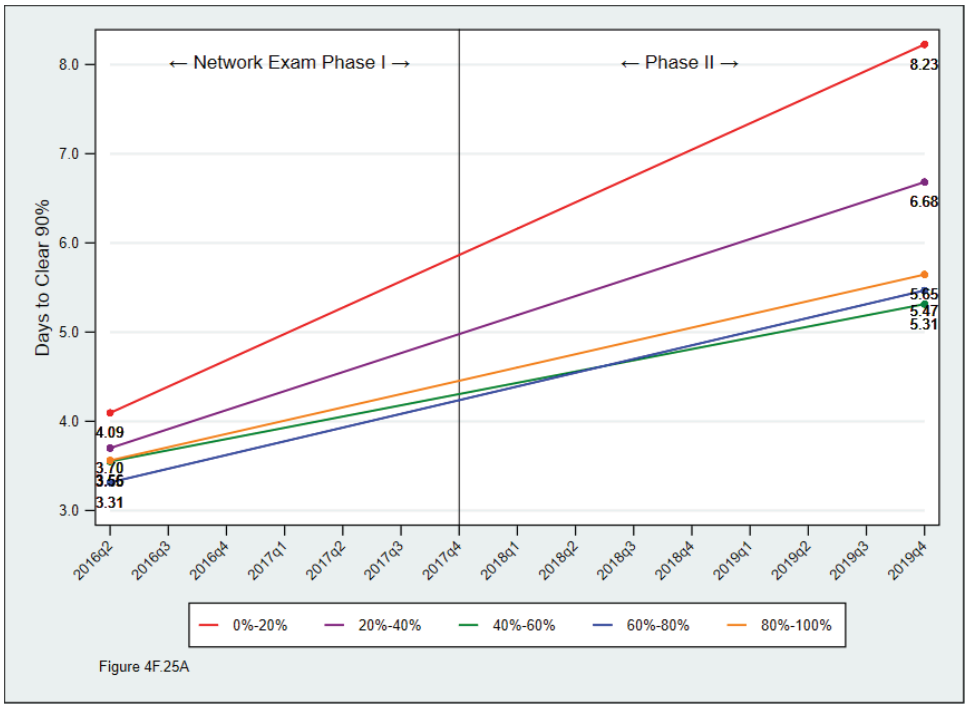


Figure 4F.24. Access line drop-off rates appear to have had little effect upon the percentage of out-of-service conditions within 24 hours, but after gains in all five categories following Frontier's takeover in 2016, significant degradation in this metric has occurred in all loss categories over the 2018-2019 period.



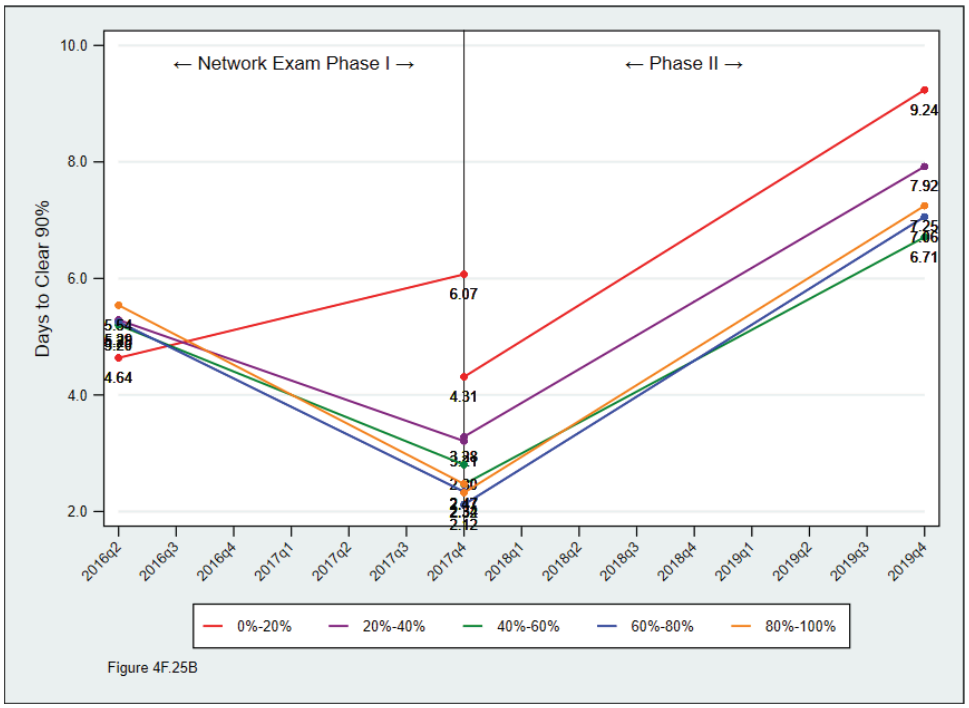


Figure 4F.25. Access line drop-off rates appear to have had little effect upon the number of days needed to clear 90% of service outages, but after gains in all five categories following Frontier's takeover in 2016, significant degradation in this metric has occurred in all loss categories over the 2018-2019 period.

Urban/Suburban/Rural

As a general matter and as we observed in Phase 1, out-of-service conditions occur less frequently and are cleared more quickly in wire centers serving the highest density urban areas. Additionally, wire centers serving less dense market areas have exhibited the largest increases both in out-of-service incidents and in the time required to clear them over the 2Q2016-4Q2019 Phase 1/2 study period. Frontier saw gains in several metrics over the first seven quarters following its takeover except in the lowest density wire centers. However, from 2018 onward, these gains were generally reversed across all density. These results are plotted on updated Figures 4F.26, 4F.27, 4F.28 and 4F.29 below.

Frontier service quality metrics continue to show the best results in higher-density serving areas.

Except in those areas with the lowest population density, Frontier's response to out-of-service conditions had generally improved over the period immediately following its takeover. However, by 2018, these gains had started to reverse.

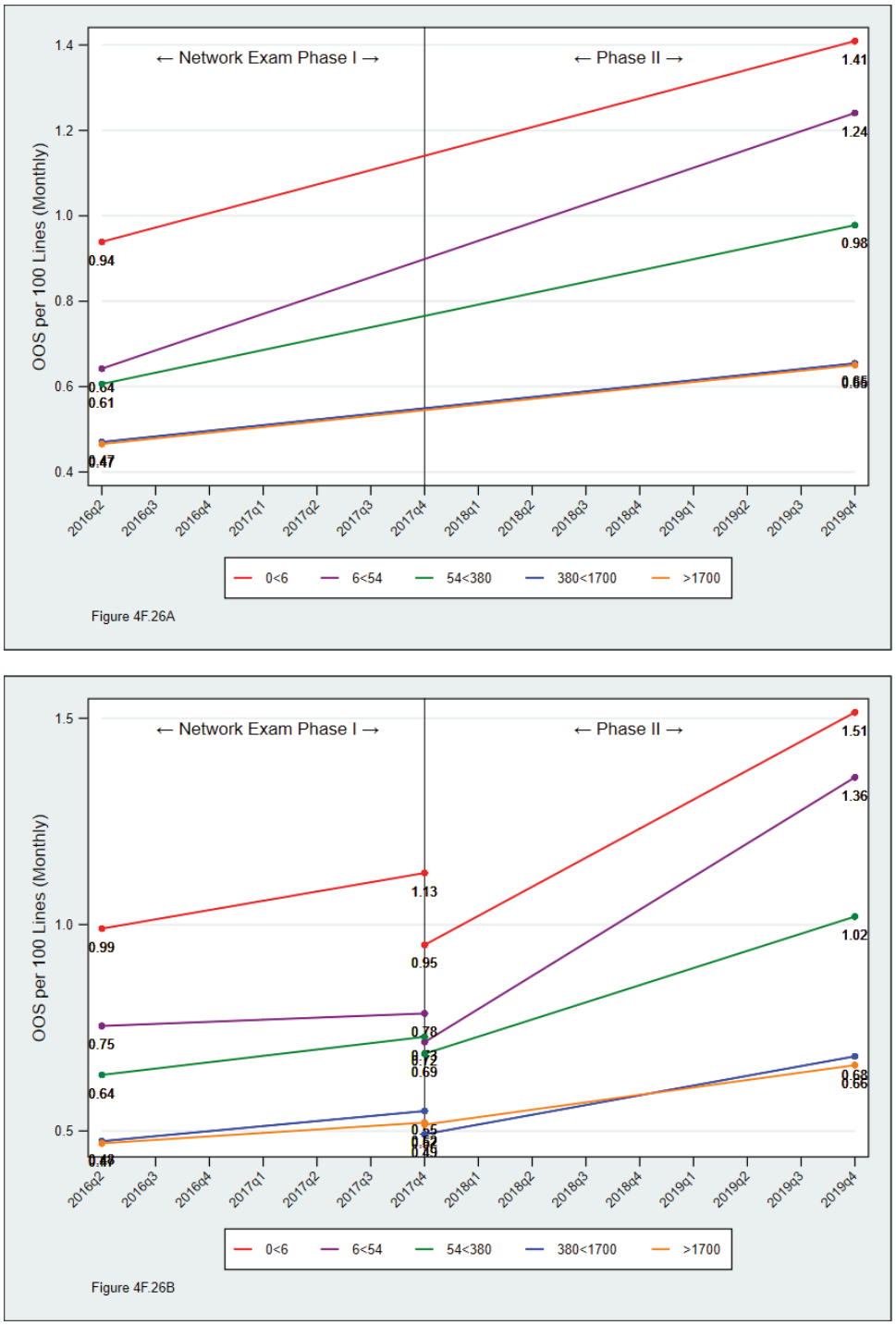
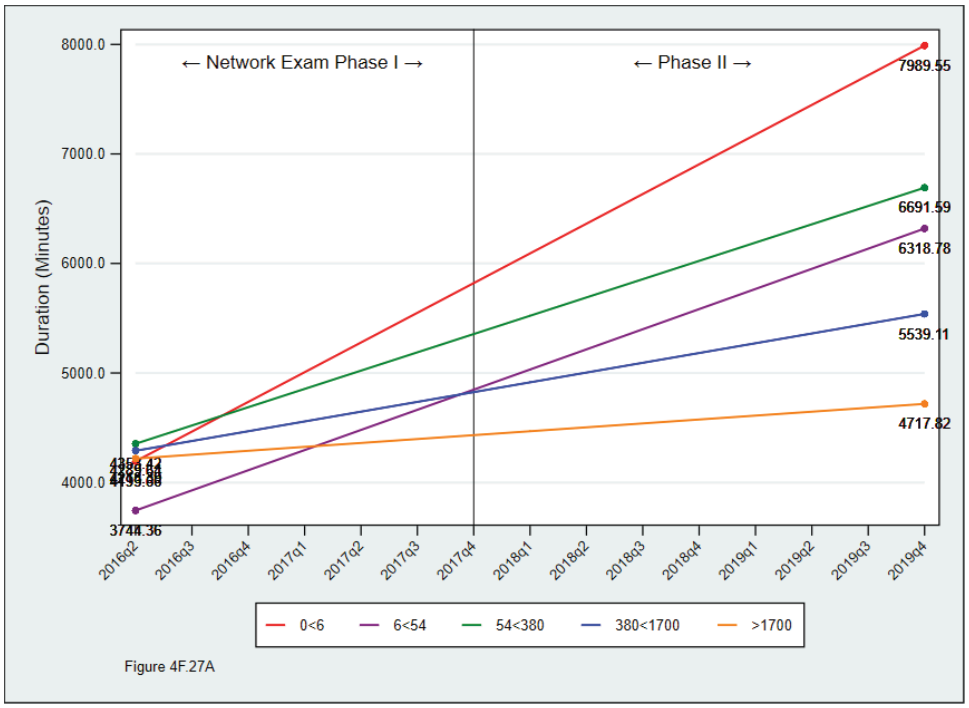


Figure 4F.26. Wire centers serving areas with the highest population density exhibit the fewest number of out-of-service conditions per 100 access lines under Frontier management, but wire centers in all density categories have seen increases in OOS rates over the 2018-2019 period.



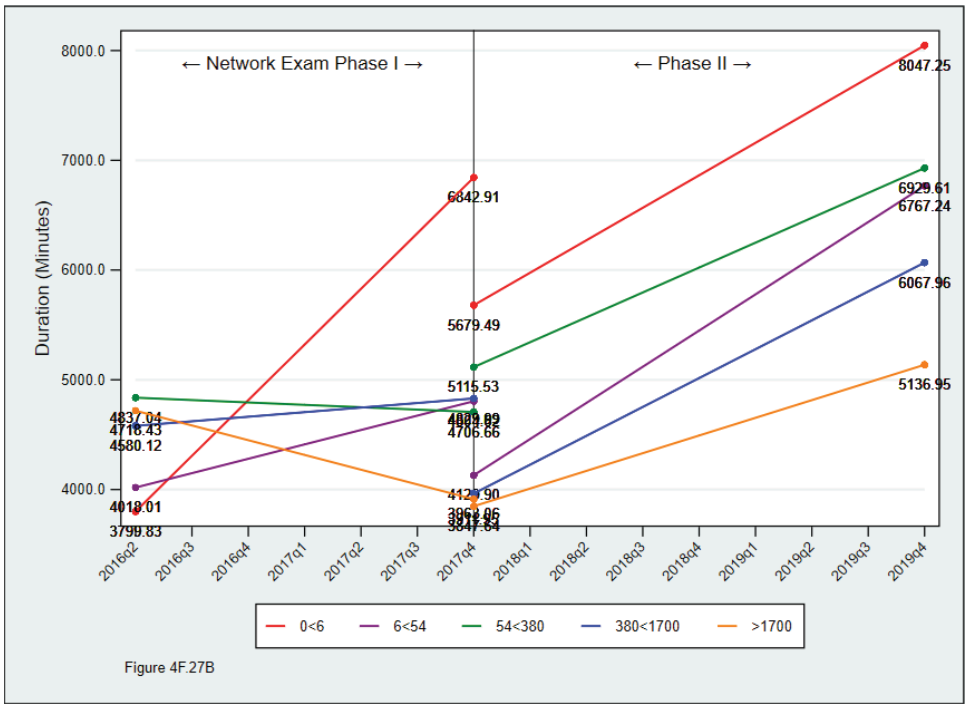
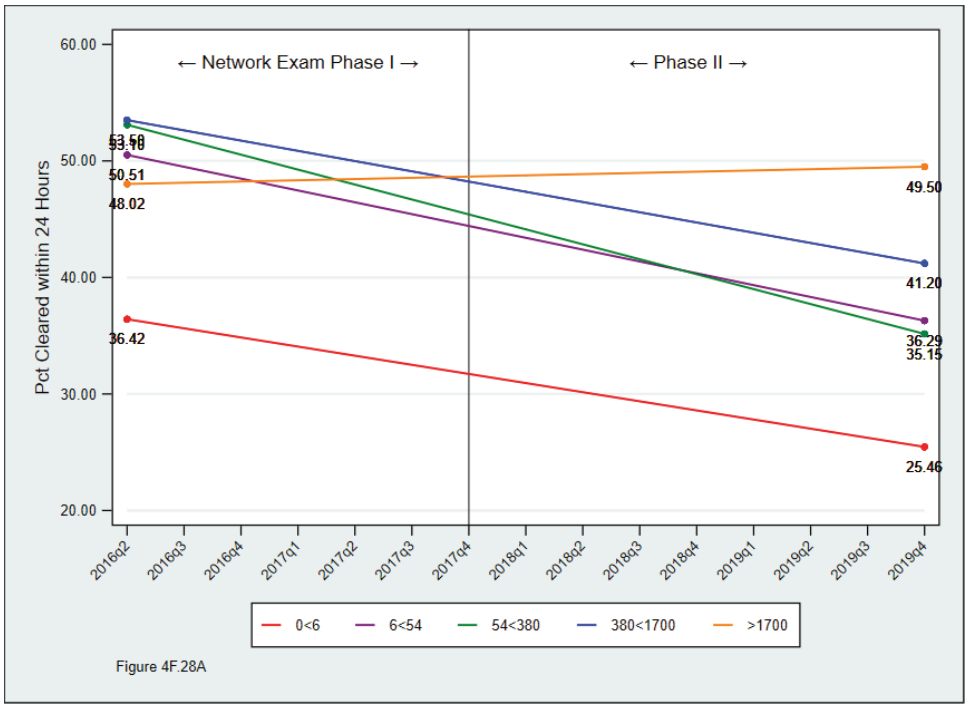


Figure 4F.27. Service outages tend to be shortest in wire centers serving the more densely populated areas, but wire centers in all density categories have seen increases in OOS duration over the 2018-2019 period.



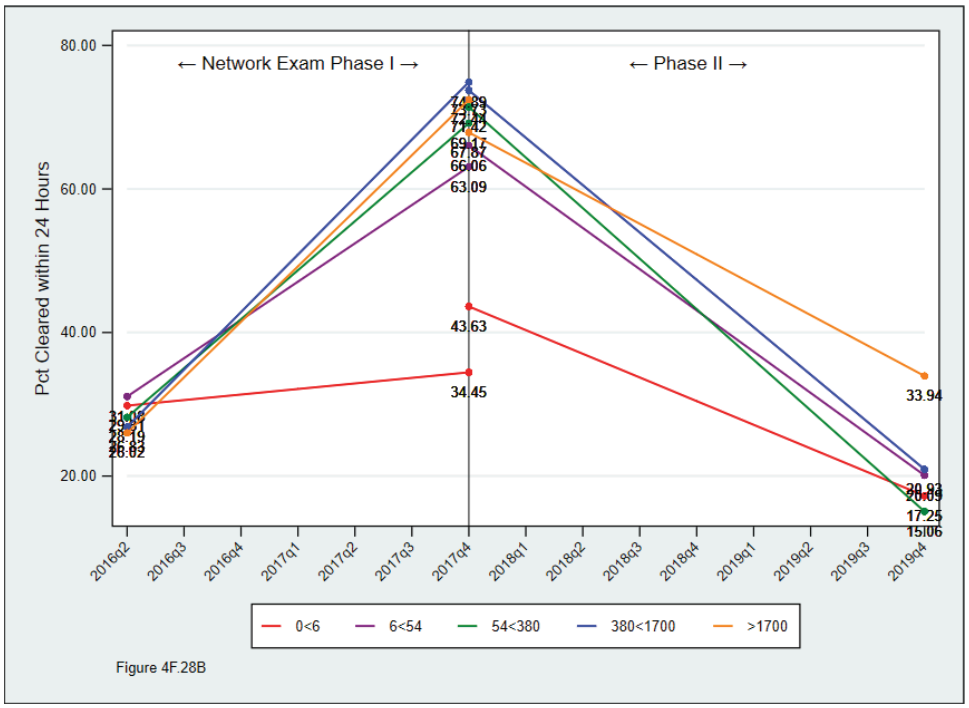
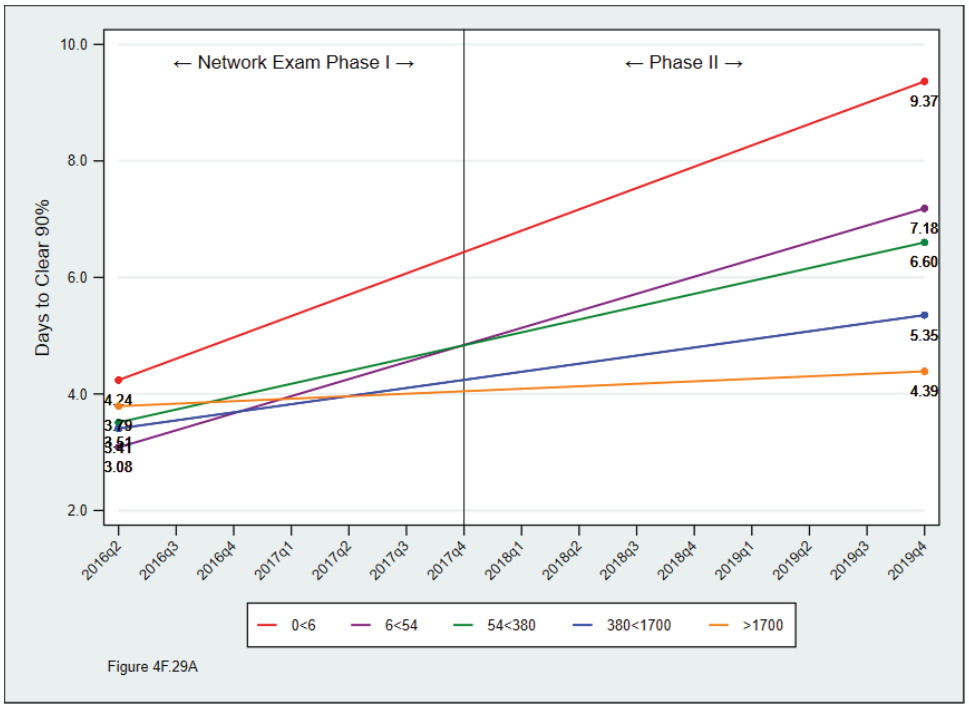


Figure 4F.28. Wire centers serving the more densely populated areas tended to clear a higher percentage of out-of-service conditions within 24 hours, but wire centers in all density categories have seen reductions in this metric over the 2018-2019 period.



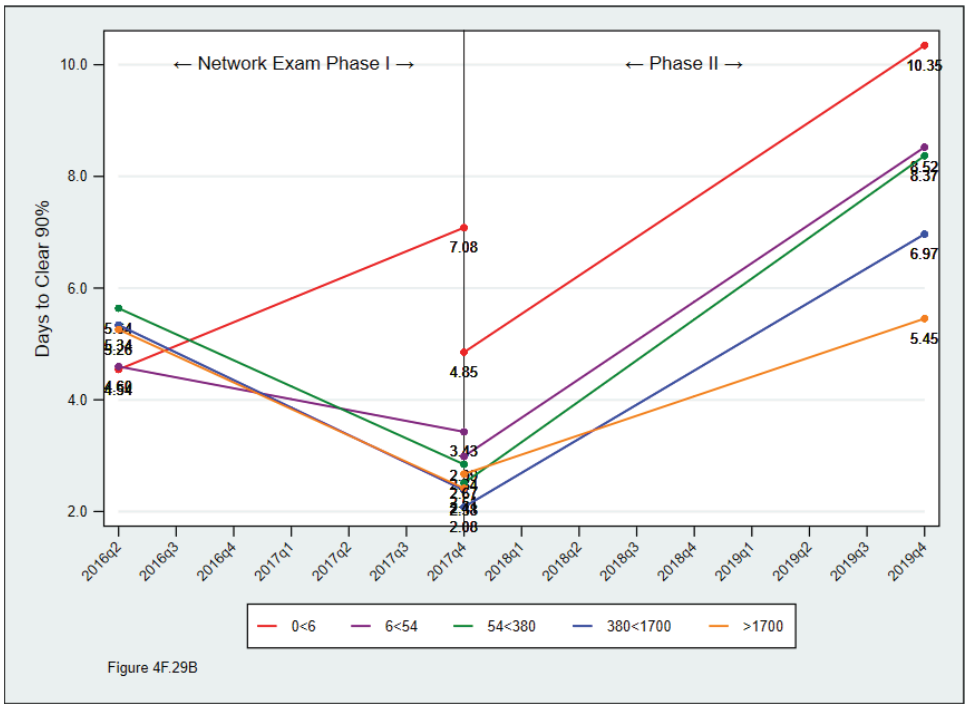


Figure 4F.29. The number of days needed to clear 90% of service outages is shortest for wire centers serving more densely populatedareas, but wire centers in all density categories have seen increases in days-to-clear over the 2018-2019 period.

ILEC Organizational Assignment

Frontier has established six (6) "Operating Areas" ("OPAs") that it has designated as Beach Cities, Costal, Desert, Gateway, Inland, and Northern.[38] As is evident from the results presented on Figures 4F.30, 4F.31, 4F.32 and 4F.33 below, there is considerable variation in out-of-service performance across the six operating areas. However, the explanation for this may relate more to the nature of the wire centers falling within each OPA than to any inherent differences in their respective management. Table 4F.19 summarizes the principal geographic areas falling within the responsibility of each of the six OPAs.

Table 4F.19

FRONTIER CALIFORNIA
OPERATING AREAS

Operating Area	Counties (or portions)	Sample wire centers
Beach Cities	Los Angeles, Orange	Santa Monica, West Los Angeles, Long Beach, Huntington Beach
Coastal	Los Angeles	Downey, Malibu, Pomona
Gateway	Inyo, Kern, Los Angeles, Mono, Monterey, San Bernardino, Santa Barbara, Ventura	San Fernando, Sepulveda, Chino, Los Serranos
Desert	Imperial, Riverside, San Bernardino	San Bernardino, Barstow, Big Bear Lake
Inland	Riverside, San Bernardino	Cucamonga, Ontario South
Northern	Humboldt, Kern, Kings, Marin, Mendocino, Merced, Placer, San Joaquin, Santa Barbara, Santa Clara, Sonoma, Stanislaus, Sutter, Trinity, Tulare, Yolo	China Lake, Randsburg

Source: Frontier response to DR-02F.

Table 4F.14 above shows, for each Frontier Reporting Unit, the Operating Area to which it has been assigned, its size (in terms of access lines served) and population density. As we have discussed above, the larger wire centers and those that serve the most densely populated areas

38. Frontier Response to DR-02F.

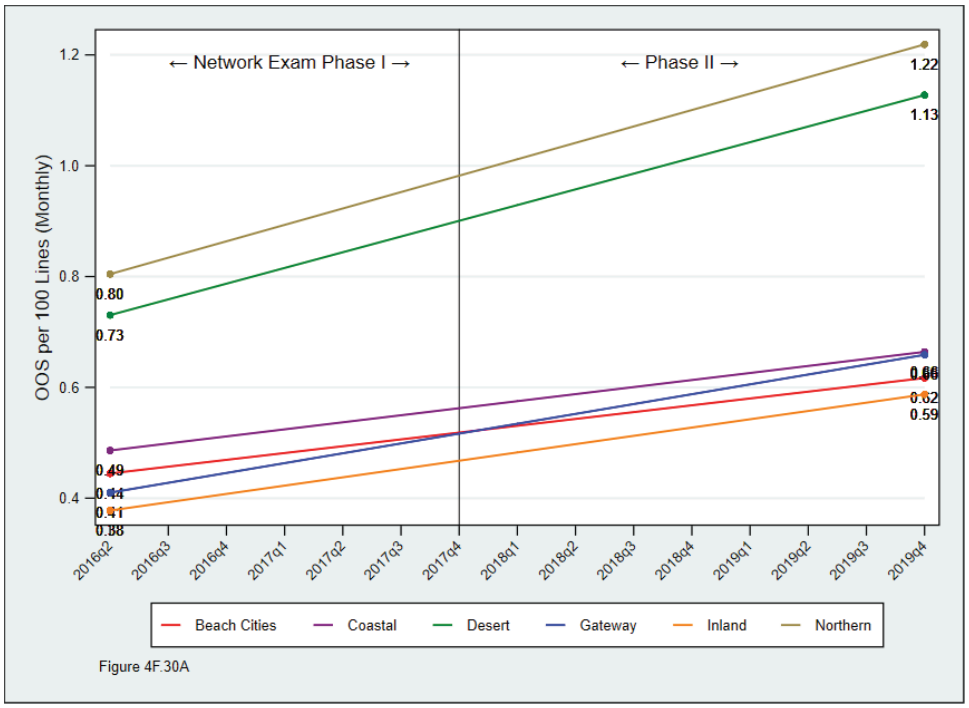
tend to exhibit superior results on all service quality metrics. There is thus a strong correlation between the overall size and population density associated with each wire center and the Operating Area to which it has been assigned. Thus, the densest portion of Los Angeles County is assigned to the "Beach Cities" OPA. Less dense portions of Los Angeles County fall within the Coastal OPA, while more rural areas are assigned to other OPAs. Not surprisingly, the results for Operating Area, WC Size, and WC Density are similar.

Service quality metrics in all six Frontier Operating Areas generally improved from the April 2016 acquisition date through the end of 2017, but this pattern reversed course starting in 2018. Out-of-service reports per 100 access lines increased slightly even in the 2016-2017 period; but saw a sharper jump beginning in 2018. Over the 2016-2017 period, out-of-service durations grew shorter in the Beach Cities, Coastal and Inland Operating Areas, held steady in the Desert OA, and increased In the Gateway and Northern OAs. However, in 2018-2019, outage durations increased in all six Operating Areas.

The percent of outages cleared within 24 hours increased in all six OAs over the 2016-2017 time frame, although only small gains occurred in the Northern Operating Area. However, that saw a significant reversal in 2018-2019 across all six Operating Areas. A similar pattern can be seen in the Days to Clear 90% metric – large gains in all OAs other than the Northern, which saw a small increase, in 2016-2017. In 2018-2019, however, Days to Clear 90% increased in all six Operating Areas.

Service quality metrics in all six Frontier Operating Areas generally improved from the April 2016 acquisition date through the end of 2017, but this pattern reversed course starting in 2018.

The Operating Areas with the largest presence of fiber upgrades continue to exhibit the lowest number of OOS incidents and the shortest outage durations for those that do occur over the full 2016-2018 period.



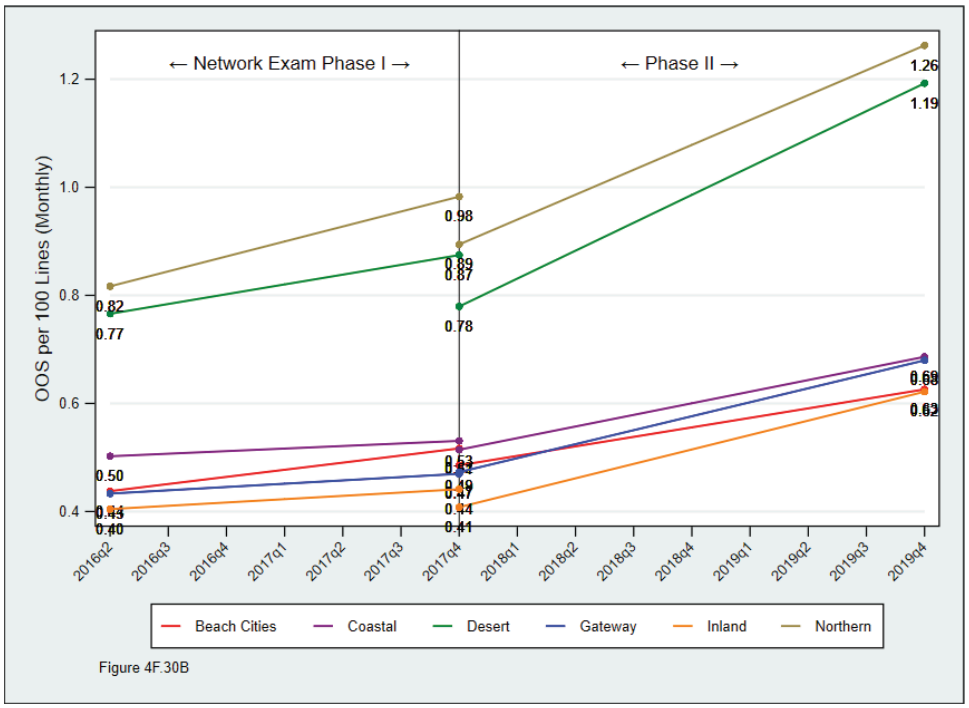
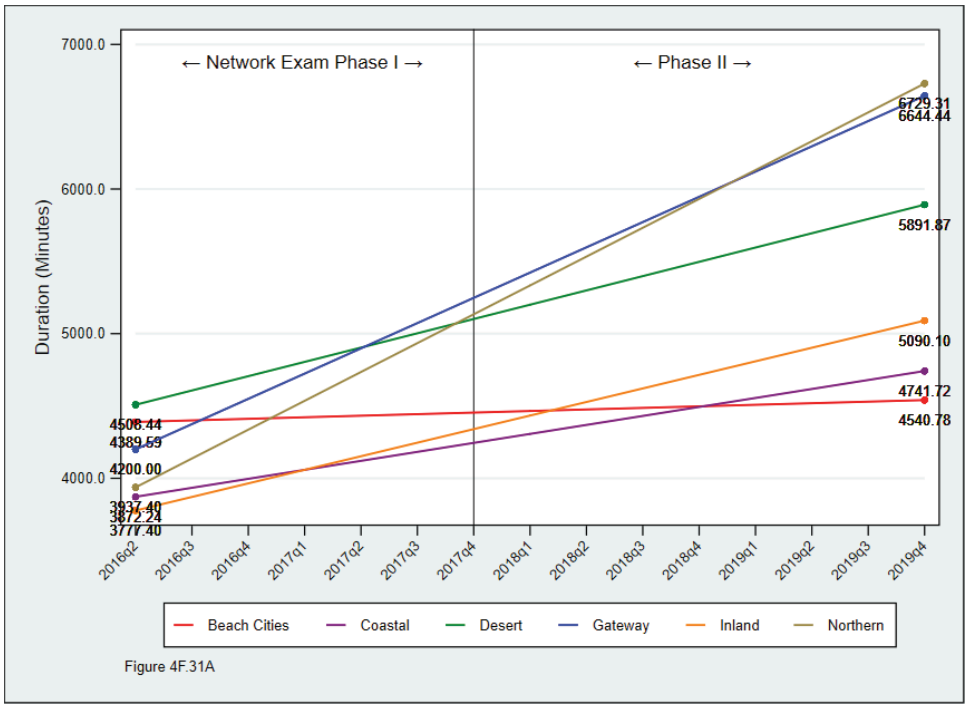


Figure 4F.30. Frontier's Desert and Northern Operating Areas, which have responsibility for wire centers serving the least densely populated areas, exhibit the highest number of out-of-service conditions per 100 access lines.



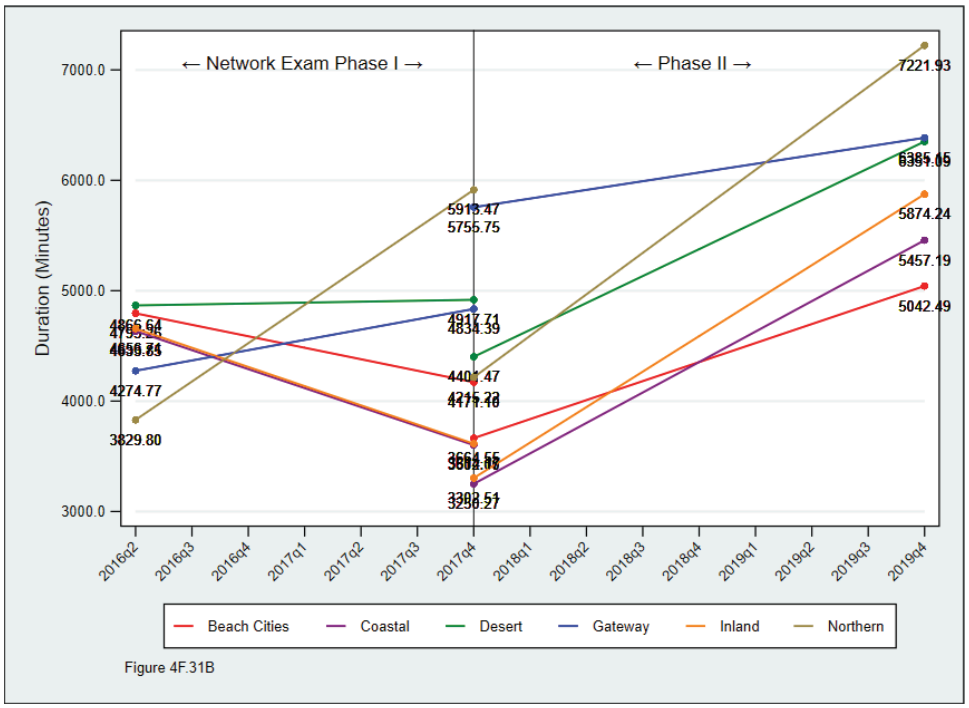
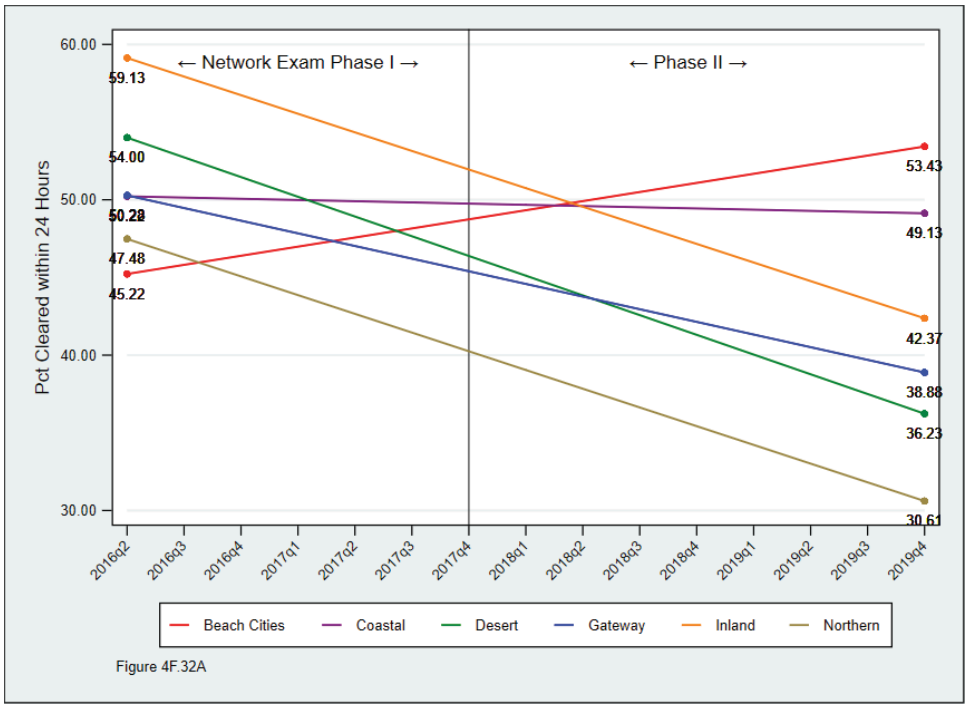


Figure 4F.31. Service outages tend to be shorter in those Operating Areas serving more densely populated areas.



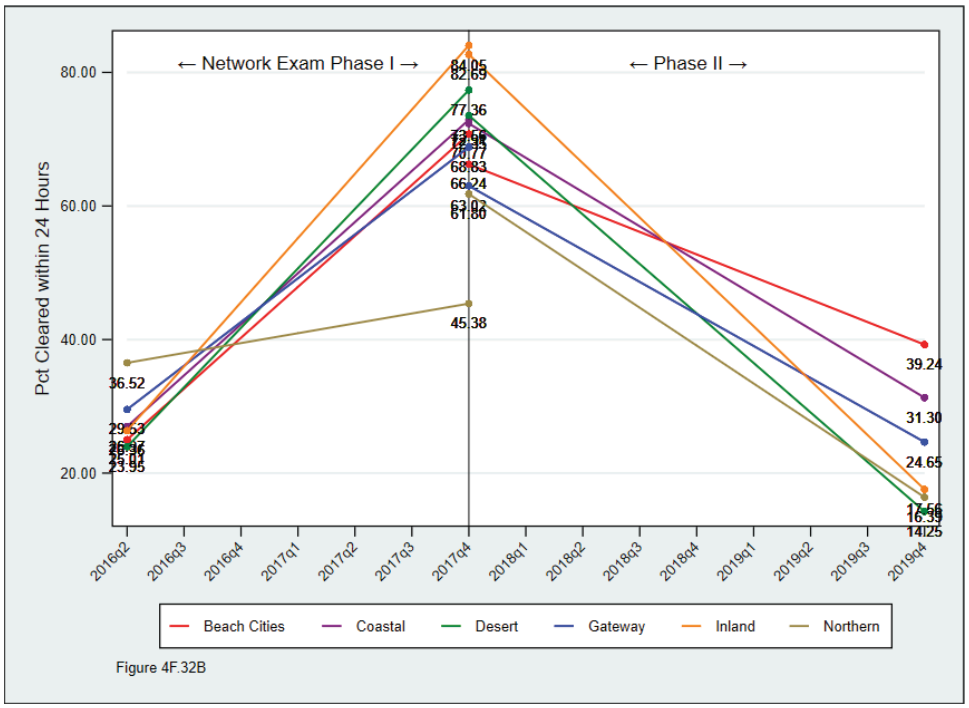
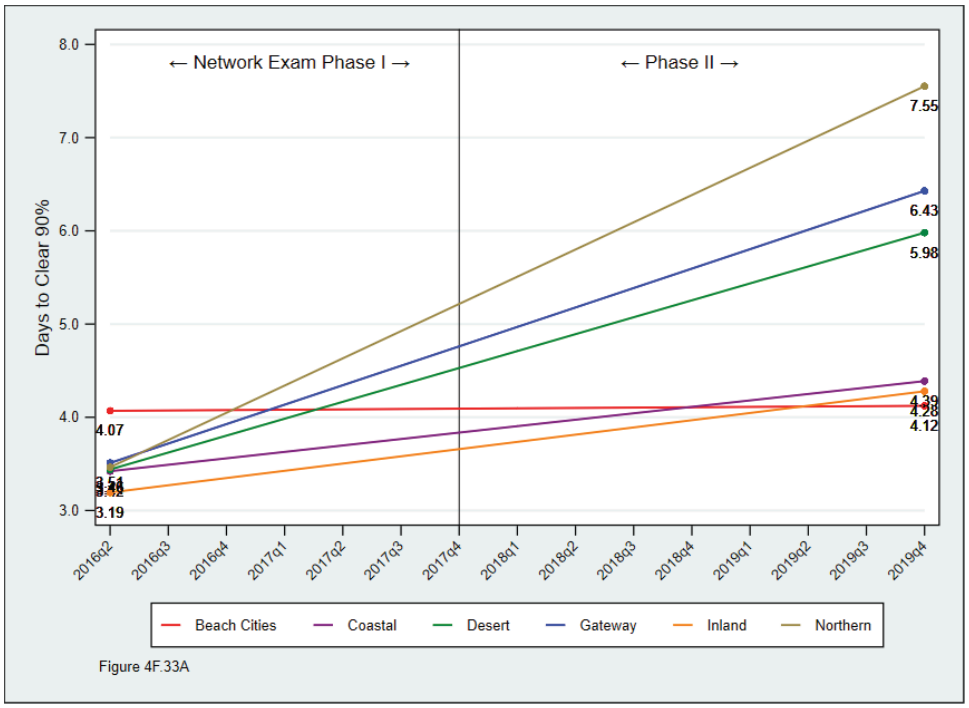


Figure 4F.32. Operating Areas serving the more densely populated areas have the best record of clearing a high percentage of out-of-service conditions within 24 hours, but these clearance rates experienced significant increases in all six Operating Areas in 2018-2019.



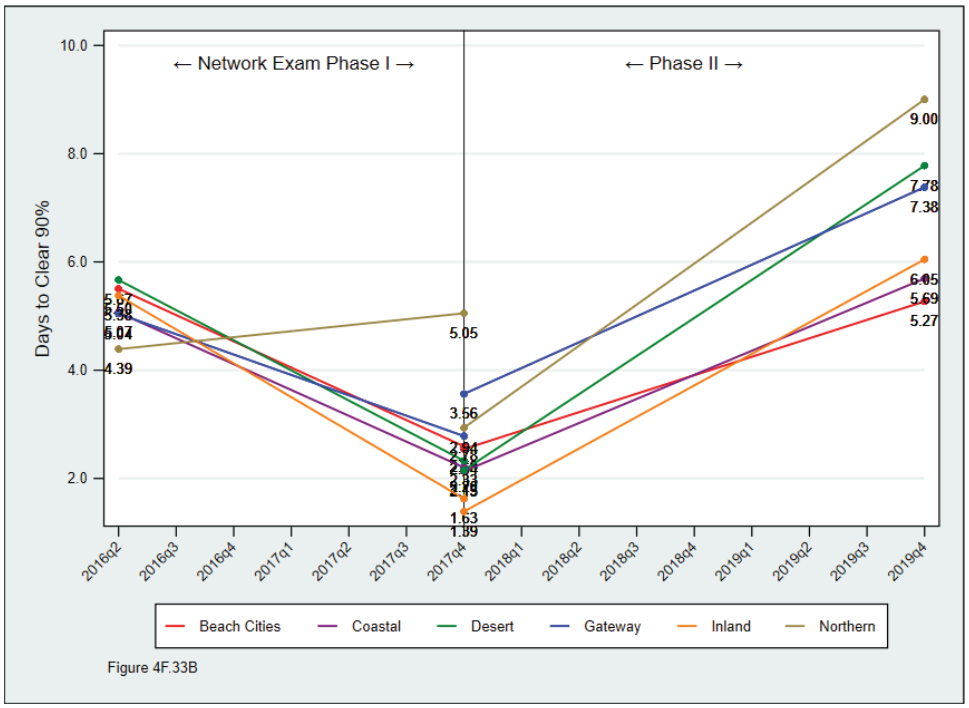


Figure 4F.33. The number of days needed to clear 90% of service outages had been improving in all except the Desert Operating Area following the Frontier takeover, but in 2018-2019 all Operating Areas saw significant escalations in outage durations.

Summary

Overall, ETI's analysis of the 306,151 Frontier Trouble Report records and other pertinent Frontier service quality data indicates that the company's service quality and its response to protracted out-of-service conditions had improved following its April 1, 2016 takeover, but those gains were short-lived. Those Frontier wire centers that have received broadband upgrades in the form of *FiOS*-capable fiber-to-the-premises ("FTTP") distribution facilities – and hence have benefitted from an infusion of new investment – fared a lot better than those locations where little or no such upgrades had taken place. Service quality and responses to outages in the very largest wire centers – particularly those in the Los Angeles area (the "Beach Cities Operating Areas) actually showed improvements both with respect to the frequency of out-of-service incidents as well as the duration of those outages that did occur, but even here the gains were reversed after 2017.