



AUS Telephone Plant Index



AUS Telephone Plant Index

Cost Trend Tables from 1946 to January 1, 2009

*Copyright © 2009 by AUS Consultants
all rights reserved, including the right to
reproduce this book or portions thereof
in any form whatsoever. For information
contact:*

*AUS Consultants
275 Grandview Ave., Suite 100
Camp Hill, PA 17011
717.763.9890*

*No guarantee or warranty of any kind is made in
the sale of the AUS Telephone Plant Index.
The right is reserved to change numbers previously published.*



AUS Telephone Plant Index

AUS Utility Reports

155 Gaither Drive
Suite A
Mount Laurel, NJ 08054
(856) 234 9200

275 Grand View Ave.
Suite 100
Camp Hill, PA 17011
(717) 763 9890

An AUS Consultants Company

Table of Contents

Trends of Public Utility Construction

Map --Geographic	iv
Foreword	v
Telephone Plant Index Description	v
Index History	v
Index Design	vi
Index Functions	vii

Telephone Plant Index

	<u>Table</u>	<u>Pages</u>
North Atlantic Region	T - 1	1 - 6
South Atlantic Region	T - 2	7 - 12
North Central Region	T - 3	13 - 18
South Central Region	T - 4	19 - 24
Plateau Region	T - 5	25 - 30
Pacific Region	T - 6	31 - 36

FOREWORD

The AUS Telephone Plant Index, which follows this foreword was first introduced in 1977 by Associated Utility Services, Inc. and published as part of the Handy-Whitman Index of Public Utility Construction Costs through 1989. In 1990 AUS Consultants, the successor company to Associated Utility Services, Inc., decided to publish the Telephone Plant Index under the name of its C.A. Turner Utility Reports publication division. In 2005 the index changed its name from CA Turner Telephone Plant Index to AUS Telephone Plant Index.

The 1990 AUS Telephone Plant Index (TPI) was the first nationally available TPI based on the Federal Communications Commission (FCC) Uniform System of Accounts (USOA) Part 32. The prior published TPI, also prepared by AUS staff, was based on the earlier USOA Part 31 Standards.

Telephone Plant Index Description

The TPI consists of a separate cost index series for each of six geographic regions shown on the map at page iv. These regions are designated: North Atlantic, South Atlantic, North Central, South Central, Plateau, and Pacific Coast. The regional designation are the same as those used in the prior issues of the cost index and are based on similarity of characteristics among the contiguous 48 states.

Each cost index series within a region consists of one cost index labeled "Total Plant Account" and up to 31 individual cost index series for the individual plant accounts identified in the left hand columns.

The Base Year for each cost index is 1973 = 100. Some plant accounts will not show an index number of 100 at year 1973 due to a subsequent adjustment for FCC Part 31 to Part 32 changes explained later in this foreword. In a few accounts the item described in the account was not included in the index series until after 1973 and the base year is considered the first year of entry.

The index for most plant accounts begins with a single entry in year 1946 and continues with a single number for each year through 1973. Beginning in 1974 there are two index numbers for each year; one for January 1 and one for July 1. These numbers represent the prevailing wages and material prices and weightings at that point in time.

Index History

An index is a tool for identifying the relative price change of an item, or a group of items over an identified period of time. Price indexes have been in use for many years for a variety of reasons. One example is an index developed in the eighteenth century by an Italian named Carli to determine the effect of the discovery of America upon the level of prices in Italy of three commodities between the years 1500 and 1750. In the current century, numerous organizations, including the United States Bureau of Statistics, have developed a variety of indexes ranging from the costs of basic commodities to manufactured goods and building construction costs.

Interest in telephone utility cost indexes has varied over time depending on the need to develop reproduction cost values for utility properties. Previous uses of cost indexes included such things as the determination of trended original cost in fair value rate jurisdictions and current cost pricing for FASB-33 financial accounting

disclosures. Due to changes in rate regulation proceedings and financial disclosure requirements, the need in these two specific areas has declined. Other areas in which reproduction cost indexes were utilized included insurance valuations, property tax valuations, retirement accounting, cost forecasting, etc.

Most recently, interest in cost indexes for the telecommunications industry has increased due to the possible implementation of price cap regulation. This form of regulation incorporates the use of changes in price levels by regulators to set rates. Under one proposal, customer tariff prices are adjusted to give consideration to productivity improvements, therefore, the development of the construction cost indexes will have an indirect bearing on the level of the company revenue requirements.

Index Design

The telephone plant index was designed as a generalized product which could be utilized by any of the various telephone operating companies to develop the reproduction cost of the company's property at the selected test year date. Due to the variation of many design construction specifics from one company to another, it is impossible to produce an index which will exactly mirror the construction cost changes for each company. In circumstances where companies desire more specific reproduction cost of their property, a custom index should be prepared or, alternately, the company's property should be inventoried and unit priced. Such unit cost work efforts, of course, will be significantly more expensive and time consuming to complete.

As indicated, the telephone plant index is a standard index which is published on a semiannual basis. The yearly average index is calculated via a 1-2-1 weighting process which is the sum of 25% of the January index, 50% of the July index, and 25% of the succeeding years January index.

In general terms, the telephone plant index was constructed around the FCC Part 32 system of accounts to aid companies in ease of application of the published index. Each embedded property account was reviewed to determine the components which comprise the larger segment of the property investment in each account. In this manner, the resulting telephone plant index was a reasonable proxy for determining the reproduction cost of the embedded investment of the independent telephone industry.

With the exception of the General Support Asset Group, the FCC Part 32 based indexes were adjusted for all index years 1987 and prior to compensate for the change in overhead capitalization policies effective with the new regulations. That is, under FCC Part 31 regulation, a greater level of overheads were previously incorporated in the plant in service investments contained on the company's books and records. The adjusted indexes for the years 1946 through 1987, when applied to the company's original costs, will produce the applicable reproduction cost under FCC Part 32 accounting treatment. The index adjustment for Part 31 to Part 32 accounting results in the plant accounts not having an index number of 100 at the 1973 base year.

The AUS Telephone Plant Index was designed around thirty-six component indexes representing the basic components of material and labor which make up the construction of the various telephone plant accounts. The components include such items as Buildings, Switching Equipment, Circuit Equipment, Poles, Cable, Wire, Vehicles, Tools, Furniture, Installer Labor and Lineman Labor, etc. The components were composited together into account level indexes based upon material and labor weights derived from a study of independent telephone construction cost experience.

Introduction of new technologies into a reproduction cost index required the review of composite weight included in development of the account level index to reflect the new mix of the property.

The goal of the telephone plant index was to produce a product which when utilized together with each companies' books and records would produce a reproduction cost value.

The AUS Telephone Plant Index does not reflect replacement cost inasmuch as it was designed to produce the reproduction cost (the cost in today's dollars to reproduce the company's embedded plant in service).

Index Functions

The AUS Telephone Plant Index series was initially prepared to address a very specific function. That is, it was designed to enable companies to produce trended original cost values relative to the historical original cost of plant in service on the companies books and records. This trended original cost is a general representation of the cost to reconstruct the property in question at the price level of the selected period. If a company desires a more specific estimate of reconstruction, the property specific indexes can be developed giving consideration to the actual history of the company's wages and material costs in comparison to the current labor and material costs. For an even more specific cost estimate to rebuild the plant in service, engineering estimates can be completed based upon the property inventory and the current unit costs for constructing the various plant categories.

In summary, the index was designed to be applied on a vintaged and account level basis to determine the reproduction cost of local distribution companies' plant in service, as of the selected price level.

A tool can be utilized correctly only within the boundaries for which the product was originally designed. Uses above and beyond the scope of the original design may or may not produce reliable results. That is, the use of a generalized index to prepare a reproduction cost will provide general results within the range of reasonableness. If more specific or exact results are required, alternative methods or procedures (i.e., custom indexes or specific detail pricing) should be employed.

An effort has been made to carefully construct an index which produces a reasonable proxy of reproduction cost for the telephone plant or local distribution companies giving consideration to the fact that there are variances in material and labor costs, as well as, construction methods and practices from one company to another. Nevertheless, we believe that there is sufficient similarity in the cost trends to make the AUS Telephone Plant Index a useful tool when carefully applied to a company's historical cost base.

North Atlantic



SCHEDULE No. T-1

AUS TELEPHONE PLANT INDEX
NORTH ATLANTIC REGION 1973=100

L I N E N O	PLANT IN SERVICE DESCRIPTION	F C C A c c t.	COST INDEX NUMBERS													L I N E N O	
			1	1	1	1	1	1	1	1	1	1	1	1	1		
			9	9	9	9	9	9	9	9	9	9	9	9	9		9
			4	4	4	4	5	5	5	5	5	5	5	5	5	5	
			6	7	8	9	0	1	2	3	4	5	6	7	8	9	
1	Total Plant		85	89	91	91	92	95	96	96	94	94	97	97	96	96	1
2																	2
3																	3
4	Motor Vehicles	2112	57	57	63	67	67	70	74	74	74	77	81	84	87	89	4
5	Aircraft	2113	56	56	62	66	66	69	73	73	73	75	80	83	86	88	5
6	Special Purpose Vehicles	2114	30	34	38	41	42	46	47	48	49	51	56	60	62	65	6
7	Garage Work Equipment	2115	36	38	42	44	46	51	51	52	53	56	61	65	67	69	7
8	Other Work Equipment	2116	50	50	52	54	55	59	59	61	62	64	67	70	71	74	8
9																	9
10																	10
11																	11
12	Buildings	2121	24	28	32	34	35	37	38	39	41	42	46	49	50	52	12
13	Furniture	2122	43	43	46	47	50	56	56	57	57	60	64	68	70	70	13
14	Office Equipment	2123	67	67	69	69	70	75	74	76	77	79	82	85	87	88	14
15	General Purpose Computers	2124	67	67	69	69	70	75	74	76	77	79	82	85	87	88	15
16																	16
17																	17
18																	18
19																	19
20	Analog Electronic Switching	2211	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
21	Digital Electronic Switching	2212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
22																	22
23																	23
24	Electro Mechanical Switching	2215	36	48	49	57	62	64	67	66	64	65	68	70	69	72	24
25																	25
26	Operator Systems	2220	37	50	51	59	64	67	69	68	66	67	70	72	71	73	26
27																	27
28																	28
29																	29
30	Radio Systems - Analog	22311	51	57	62	63	63	66	64	60	58	58	49	49	46	47	30
31	Radio Systems - Digital	22312	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
32	Circuit Equipment - Analog	22321	347	392	417	411	410	423	410	401	348	311	319	317	303	299	32
33	Circuit Equipment - Digital	22322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
34																	34
35																	35
36																	36
37	Public Telephone Term Eq	2351	148	151	145	145	148	154	143	144	146	158	159	164	164	164	37
38																	38
39																	39
40	Poles	2411	33	37	39	41	42	45	47	49	51	50	54	58	59	59	40
41	Aerial Cable - Metallic	24211	44	47	49	49	51	58	61	64	64	68	74	72	70	71	41
42	Aerial Cable - Fiber	24212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
43	Underground Cable - Metallic	24221	48	52	54	53	55	64	67	71	69	75	82	78	75	76	43
44	Underground Cable - Fiber	24222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
45	Buried Cable - Metallic	24231	50	54	56	55	57	66	70	74	72	78	85	81	77	78	45
46	Buried Cable - Fiber	24232	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
47	Submarine Cable - Metallic	24241	43	45	48	48	50	56	59	62	61	65	71	69	68	69	47
48	Submarine Cable - Fiber	24242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
49	Intra Building Cable - Metallic	24261	43	47	49	48	50	58	61	64	63	68	74	71	69	70	49
50	Intra Building Cable - Fiber	24262	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
51	Aerial Wire	2431	33	36	38	38	40	45	47	50	50	55	58	57	57	59	51
52	Conduit Systems	2441	54	55	57	59	60	63	64	64	65	65	67	69	71	72	52
53																	53
54																	54
55																	55
56																	56



SCHEDULE No. T-1

AUS TELEPHONE PLANT INDEX
NORTH ATLANTIC REGION 1973=100

LINE NO	COST INDEX NUMBERS																				LINE NO				
														1974		1975		1976		1977		1978			
	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	Jan 1	July 1	Jan 1	July 1	Jan 1	July 1		Jan 1	July 1	Jan 1	July 1
1	97	96	95	94	94	94	95	96	96	97	101	101	102	105	108	113	116	116	117	120	122	123	125	128	1
2																									2
3																									3
4	88	87	87	86	86	85	85	86	88	89	92	97	99	100	102	105	116	116	123	124	131	132	140	143	4
5	86	86	85	85	84	84	84	84	86	88	91	96	99	100	102	109	119	123	128	131	136	140	146	151	5
6	66	67	67	68	70	72	74	77	81	85	89	93	96	100	103	114	130	141	147	151	158	162	171	177	6
7	70	70	71	71	72	73	76	79	82	85	90	94	96	100	114	118	134	139	143	147	153	159	165	172	7
8	75	77	78	79	79	79	81	85	88	93	98	100	100	100	100	111	118	122	119	122	124	130	131	137	8
9																									9
10																									10
11																									11
12	53	52	53	54	56	57	59	61	64	68	74	84	91	100	107	119	125	128	126	131	132	136	140	148	12
13	71	71	71	71	72	72	73	77	80	83	89	91	93	100	103	114	130	128	129	135	136	144	149	155	13
14	88	89	89	90	90	90	91	92	93	93	96	97	99	100	101	105	109	111	110	112	111	113	114	118	14
15	88	89	89	90	90	90	91	92	93	93	96	97	99	100	100	100	102	103	100	100	98	90	90	90	15
16																									16
17																									17
18																									18
19																									19
20	0	0	0	0	0	0	0	0	0	0	0	0	0	104	103	106	110	111	111	113	113	113	115	119	20
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	105	100	95	95	95	21
22																									22
23																									23
24	70	72	71	76	78	75	72	71	75	81	84	88	98	104	106	110	115	120	124	127	132	136	140	145	24
25																									25
26	71	74	73	77	79	76	72	71	76	81	85	89	98	104	106	108	111	114	117	119	121	122	125	128	26
27																									27
28																									28
29																									29
30	36	36	46	49	52	60	58	63	62	66	78	97	102	104	102	102	102	102	97	98	103	104	106	106	30
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
32	312	297	273	234	228	214	224	210	173	159	163	128	108	104	105	108	111	112	111	111	115	118	118	119	32
33	0	0	0	0	0	0	0	0	0	0	0	0	0	104	104	104	105	105	110	116	121	126	126	127	33
34																									34
35																									35
36																									36
37	165	165	165	165	166	130	122	123	120	118	108	107	108	107	106	107	110	109	109	111	112	114	116	119	37
38																									38
39																									39
40	60	61	62	63	65	66	68	71	76	79	83	88	97	107	119	131	144	157	158	160	164	169	176	183	40
41	72	70	70	70	70	73	77	81	84	88	96	97	100	107	114	125	129	126	130	135	140	144	148	152	41
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
43	78	75	74	73	72	75	80	84	87	91	100	99	100	107	114	127	130	125	129	134	138	143	145	149	43
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
45	80	76	76	74	73	77	81	85	88	91	101	99	100	107	114	128	131	124	128	133	138	142	144	147	45
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
47	71	70	70	70	71	73	77	81	84	88	95	96	101	107	113	123	128	126	131	136	141	145	150	154	47
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
49	72	70	70	70	70	73	77	81	84	88	96	96	100	107	114	125	129	126	130	136	140	145	148	152	49
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
51	61	62	63	65	66	70	73	75	78	84	91	93	100	107	114	125	130	131	134	139	142	146	145	150	51
52	73	74	74	77	78	79	82	84	84	87	89	94	102	107	111	117	127	130	135	139	144	150	159	163	52
53																									53
54																									54
55																									55
56																									56



SCHEDULE No. T-1

AUS TELEPHONE PLANT INDEX
NORTH ATLANTIC REGION 1973=100

L I N E N O	PLANT IN SERVICE DESCRIPTION	F C C A c c t	COST INDEX NUMBERS														L I N E N O
			1979		1980		1981		1982		1983		1984		1985		
			Jan 1	July 1	Jan 1	July 1	Jan 1	July 1	Jan 1	July 1	Jan 1	July 1	Jan 1	July 1	Jan 1	July 1	
1	Total Plant		131	135	140	146	146	149	150	152	156	159	156	154	156	158	1
2																	2
3																	3
4	Motor Vehicles	2112	149	155	162	167	178	186	195	195	201	199	203	204	206	210	4
5	Aircraft	2113	157	163	170	180	195	205	215	217	224	223	227	228	230	234	5
6	Special Purpose Vehicles	2114	187	195	206	220	231	245	254	263	266	270	271	274	274	277	6
7	Garage Work Equipment	2115	180	189	200	213	223	234	241	248	250	251	253	257	260	263	7
8	Other Work Equipment	2116	141	147	153	165	170	181	183	189	189	189	189	190	192	197	8
9																	9
10																	10
11																	11
12	Buildings	2121	154	163	176	183	188	193	192	198	200	206	210	218	223	224	12
13	Furniture	2122	160	171	174	182	187	199	210	213	215	222	224	229	232	238	13
14	Office Equipment	2123	119	123	125	130	132	136	137	140	140	143	142	142	140	142	14
15	General Purpose Computers	2124	90	90	90	90	90	90	87	83	76	69	59	48	48	48	15
16																	16
17																	17
18																	18
19																	19
20	Analog Electronic Switching	2211	122	125	130	140	149	163	168	175	183	188	193	199	202	204	20
21	Digital Electronic Switching	2212	96	96	96	96	97	97	94	90	84	77	67	57	57	57	21
22																	22
23																	23
24	Electro Mechanical Switching	2215	151	156	167	188	199	213	219	226	232	248	268	277	282	281	24
25																	25
26	Operator Systems	2220	132	136	146	157	166	176	180	185	191	197	204	211	213	215	26
27																	27
28																	28
29																	29
30	Radio Systems - Analog	22311	103	103	100	100	101	102	90	91	94	94	79	80	80	81	30
31	Radio Systems - Digital	22312	0	0	0	0	0	0	0	0	115	115	115	117	119	121	31
32	Circuit Equipment - Analog	22321	120	122	125	130	129	128	130	132	121	154	153	152	153	152	32
33	Circuit Equipment - Digital	22322	123	120	114	107	100	93	93	94	95	96	89	82	80	78	33
34																	34
35																	35
36																	36
37	Public Telephone Term Eq	2351	123	127	132	141	145	150	158	167	190	196	201	206	210	212	37
38																	38
39																	39
40	Poles	2411	196	208	220	232	240	249	254	259	263	268	272	273	280	283	40
41	Aerial Cable - Metallic	24211	158	170	182	193	191	197	202	204	208	213	211	209	219	231	41
42	Aerial Cable - Fiber	24212	0	0	0	0	0	0	0	0	136	138	132	127	119	111	42
43	Underground Cable - Metallic	24221	155	168	181	192	187	191	195	196	199	203	197	193	204	217	43
44	Underground Cable - Fiber	24222	0	0	0	0	0	0	0	0	130	131	125	119	110	101	44
45	Buried Cable - Metallic	24231	153	167	180	192	186	189	192	193	195	199	192	187	198	212	45
46	Buried Cable - Fiber	24232	0	0	0	0	0	0	0	0	129	131	124	118	109	100	46
47	Submarine Cable - Metallic	24241	160	171	181	192	193	199	205	209	214	219	219	218	227	238	47
48	Submarine Cable - Fiber	24242	0	0	0	0	0	0	0	0	147	149	145	141	134	128	48
49	Intra Building Cable - Metallic	24261	158	170	182	193	191	197	202	205	209	214	211	210	220	231	49
50	Intra Building Cable - Fiber	24262	0	0	0	0	0	0	0	0	136	138	132	127	119	111	50
51	Aerial Wire	2431	158	172	182	191	198	206	210	214	219	225	232	239	243	248	51
52	Conduit Systems	2441	169	180	188	196	203	211	219	220	228	240	246	253	257	262	52
53																	53
54																	54
55																	55
56																	56

