

**ITS Unit Costs for Commercial Vehicle Administration (CA) and Commercial Vehicle Check Station (CC) (as of July 31, 2005)**

Subsystem/Unit Cost Element	IDAS No. ^	Lifetime* (years)	Capital Cost (\$K)		Cost Date	O&M Cost (\$K/year)		Cost Date	Description
			Low	High		Low	High		
<b>Commercial Vehicle Administration (CA)</b>									
Commercial Vehicle Admin Hardware	CA001	5	9	12	2004	0.18	0.24	2004	Includes 3 workstations. O&M estimated at 2% of capital cost.
Commercial Vehicle Admin Software, Integration	CA002	20	200	220	1995	4	4.4	1995	Includes processor and integration. Software is COTS.
Commercial Vehicle Admin Labor	CA003					270	330	2003	Labor for 4 staff @ 75K (average). Salary costs are fully loaded prices including base salary, overtime, overhead, benefits, etc.
Software Upgrade for Electronic Credential Purchasing	CA004	20	60	140	1995	1.2	2.8	1995	Electronic credentials purchase software, database and management for post-trip processing & E-credentials.
Software Upgrade for Inter-Agency Information Exchange	CA005	20	20	40	1995	0.4	0.8	1995	Processor and integration add-on. Software is COTS.
Added Labor for Inter-Agency Information Exchange	CA006					67	82	1995	Labor for 1 staff @ 75K (average). Salary cost are fully loaded prices including base salary, overtime, benefits, etc.
Software Upgrade for Safety Administration	CA007	20	40	80	1995	0.8	1.6	1995	Database add-on, software, and integration. Software is COTS.
<b>Commercial Vehicle Check Station (CC)</b>									
Check Station Structure	CC001	20	50	75	1995				Roadside structure - mainline w/ lane indicator signals.
Signal Board	CC002	10	10	15	1995	1	1.5	1995	Roadside signal board.
Signal Indicator	CC003	20	5	10	1995	0.25	0.5	1995	Signal indicator system.
Roadside Beacon	CC004	10	5	8	1995	0.5	0.8	1995	Roadside beacon used for electronic screening (not included in roadside subsystem). Beacon repair/replacement.
Wireline to Roadside Beacon	CC005	20	10	20	1995				Dedicated wireline communication from beacon to roadside (1 mile upstream).
Check Station Software, Integration	CC006	20	180	215	1995				Software, processor and integration.
Check Station Hardware	CC007	5	3	4	2004	0.06	0.08	2004	Includes 1 workstation. O&M estimated at 2% of capital cost.
Safety and Fitness Electronic Records (SAFER) Data Mailbox			7.5	9.2	1999	0.44	0.66	1999	Includes portable computer with printer and wireless Internet modem to download, record, and upload carrier safety database records at field locations or check stations.
Detection System	CC008	10	50	75	1995	2.5	3.75	1995	Commercial vehicle communication interface and communication device (cell based radio).
Software Upgrade for Safety Inspection	CC009	20	40	80	1995	0.8	1.6	1995	Safety-database add-on, and result writing to vehicle tag processor add-on. Software is COTS.
Handheld Safety Devices	CC010	5	3	5	1995	0.3	0.5	1995	For commercial vehicle inspection. The devices either measure data themselves or read data from the vehicle. Three per location.
Software Upgrade for Citation and Accident Recording	CC011	20	20	40	1995	1	2	1995	Software add-on for recording of citation and accident information to the commercial vehicle.
Weigh-In-Motion Facility	CC012	10	14	21	1995	1.4	2.1	1995	Includes WIM fixed load cell and interface to roadside facility. Software is COTS.
Wireline to Weigh-In-Motion Facility	CC013	10	1	2	1995	0.1	0.2	1995	Wireline communication (local line).

\* Not available for all unit cost elements

**Conversion Ratios**

<u>Index</u>	<u>2004/1995</u>	<u>2004/1998</u>	<u>2004/1999</u>	<u>2004/2000</u>	<u>2004/2001</u>	<u>2004/2002</u>	<u>2004/2003</u>
1 WPU1176	0.9215		0.9166		0.9434	0.9600	0.9791
2 WPU1178	0.7817	0.8880	0.9043	0.9145	0.9457	0.9610	0.9780
3 PCU5112105112102	0.9606	0.9455		0.9088	0.9027	0.9115	0.9581
4 PCU BBLD-BBLD	1.1761						1.0778
5 WPU115	0.3272	0.5231	0.6053		0.7219		0.9203
6 ECI11061I	1.3642				1.1200		1.0377

<b>Notes</b>	
1 WPU1176	Applied to communications and related equipment
2 WPU1178	Applied to elements that contain electronic components
3 PCU5112105112102	Applied to software and integration elements
4 PCU BBLD-BBLD	Applied to physical dwellings at Centers and Toll Plaza
5 WPU115	Applied to computer hardware
6 ECI11061I	Applied to labor categories

**Year-by-year index series from 1995-2004**

<b>1 Series Id: WPU1176</b>														<b>Source <a href="http://www.bls.gov/ppi/">http://www.bls.gov/ppi/</a></b>
Not Seasonally Adjusted														
Group: Machinery and equipment														
Item: Communication and related equipment														
Base Date: 8512														
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann	
1995	111.9	112.1	112.1	112.2	112.1	111.9	111.8	111.9	112	112	112.3	112.2	112.1	
1996	112.9	113.1	113	113	112.7	112.6	112.9	113.1	113	113	113	113.9	113	
1997	113.9	114	113.4	113.5	113.7	113.6	114.4	114.2	114	114	114.8	114.8	114	
1998	114.8	114.8	114.6	114.4	114.1	114.1	113.7	113.6	114	114	113.7	113.5	114.1	
1999	114.3	114.2	114.1	114	113	112.8	112.6	112.1	111	111	111.3	111.3	112.7	
2000	111.4	110.9	110.8	110.6	110.8	110.4	110.5	110.5	111	110	110.4	109.8	110.6	
2001	110.3	110.3	110.3	109.6	109.6	109.5	109.2	109.2	109	109	109.1	109	109.5	
2002	109.3	108.7	108.8	107.9	107.9	107.7	106.9	107.1	107	107	106.8	106.2	107.6	
2003	106.1	105.7	106.4	106.2	106.1	105.7	104.8	104.9	105	105	105.2	105.2	105.5	
2004	105	103.4	103.4	103.3	103.4	103.1	103	103.2	103	103	103.1	103	103.3	
2005	102.7	102.7(P)	102.4(P)	102.5(P)	102.4(P)									

P : Preliminary. All indexes are subject to revision four months after original publication.

<b>2 Series Id: WPU1178</b>														<b>Source <a href="http://www.bls.gov/ppi/">http://www.bls.gov/ppi/</a></b>
Not Seasonally Adjusted														
Group: Machinery and equipment														
Item: Electronic components and accessories														
Base Date: 8200														
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann	
1995	114.6	115	114.3	114.4	114	113.7	113.1	112.9	113	113	113.1	112.9	113.6	
1996	112.5	112.2	110.8	109.4	108.5	107.9	108	108	108	107	107.3	107.2	108.9	
1997	106.7	106	105.8	105.4	104.5	104.5	104.4	103	103	102	101.6	101.4	104	
1998	101.1	100.7	100.7	100.4	100.1	100	99.7	99.6	99.5	99.4	99.2	99.1	100	
1999	98.8	98.6	98.6	98.3	98.1	97.8	97.6	97.7	98.1	98.3	98.2	97.9	98.2	
2000	97.2	96.9	96.8	97.3	97.1	97.3	97.7	97.6	97.5	97.2	96.9	96.1	97.1	
2001	95.9	95.3	95.1	94.9	94.6	94	93.5	92.9	92.6	92.4	92.6	92.7	93.9	
2002	92.8	93	93.2	92.8	92.5	92.5	92.3	92.3	92.3	92	92	91.5	92.4	
2003	91.3	91.1	91.2	91.3	91.4	91.1	90.9	90.6	90.3	90.2	90.3	89.7	90.8	
2004	88.9	89.4	89.2	89.6	89.1	89.3	88.4	88.3	88.2	88.4	88.2	88.2	88.8	
2005	88.2	88.4(P)	88.2(P)	88.0(P)	87.1(P)									

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Index Information for the ITS Unit Costs Database (as of July 31, 2005)

**3 Series Id: PCU5112105112102** **Source <http://www.bls.gov/ppi/>**  
 Industry: Software publishers  
 Product: Applications software  
 Base Date: 9712

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1997												100	
1998	101.2	99.1	97.9	97.8	99.7	99.8	99.2	98.1	100	100	98.3	98.2	99.1
1999	99.1	99.5	99.5	99.5	99.3	100	99.8	100.6	99.9	99.9	99.7	99.6	99.7
2000	100	101.1	99.2	101.9	103.1	100.8	103.2	106.2	106	107	104.2	103.9	103.1
2001	105.3	104	104.7	107.8	103.1	103.8	100.2	103.5	104	104	103	103.9	103.8
2002	103.9	103.8	103.2	102	102.2	102	102.1	103.2	103	103	102.3	102.8	102.8
2003	98.6	100.2	99.3	99.5	99.5	99	100.1	97.7	94.2	94.6	95.7	95	97.8
2004	94.3	94.9	94.6	94.9	93.1	93.7	95.2	93.5	93.3	93	92.4	91.4	93.7
2005	93.2	92.0(P)	92.6(P)	93.3(P)	92.0(P)								

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**NOTE:** Index data was not available for 1995. The 1995 annual value was derived using linear regression. A linear trendline was developed using data points from March 2000 and before. Based on this trendline, we estimate a 0.52 decrease in the annual index from year to year. The 1995 annual index value is estimated to be 97.5.

**4 Series ID : PCUBBLD--BBLD--** **Source <http://www.bls.gov/ppi/>**  
 Not Seasonally Adjusted  
 Industry : Non-residential buildings  
 Product : Non-residential buildings  
 Base Date : 8606

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1995	124.3	124.7	125.3	125.9	126.1	126.2	126.5	126.7	127	127	126.8	126.8	126.1
1996	127	127.1	127.3	127.6	128.1	128.4	128.4	128.6	129	129	129.3	129.3	128.2
1997	129.6	129.9	130	130.3	130.7	130.7	130.8	130.9	131	131	130.9	130.7	130.5
1998	130.6	130.6	130.7	131.1	131.2	131.4	131.6	131.6	132	132	131.4	131.1	131.2
1999	131.4	131.5	131.8	132.3	132.6	133.1	133.5	133.9	134	134	134	134.2	133
2000	134.7	135.2	135.7	135.8	135.5	136	135.8	135.5	136	136	135.7	135.6	135.6
2001	135.8	136	135.9	136.2	136.8	136.7	136.2	136.2	136	136	135.3	134.9	136
2002	135.1	135.1	135.4	135.8	135.8	135.8	136	136.3	136	136	136	135.9	135.8
2003	136.2	136.6	136.8	136.8	136.9	137	137.5	137.8	139	139	139.2	139.1	137.6
2004	140.5	142	144	146.3	148.2	148.4	149.2	150.8	152	153	152.9	152.1	148.3
2005	153.9	155.2(P)	157.0(P)	157.8(P)	157.4(P)								

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Index Information for the ITS Unit Costs Database (as of July 31, 2005)

**5 Series Id: WPU115** **Source <http://www.bls.gov/ppi/>**  
 Not Seasonally Adjusted  
 Group: Machinery and equipment  
 Item: Electronic computers and computer equipment  
 Base Date: 9812

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1995	181.1	178.4	176.9	177.3	176.1	174.2	173.1	170.2	169	168	166.4	165.8	173
1996	163.1	159.5	157.5	153.4	152.2	150.5	148.7	148	147	145	142.9	140.7	150.7
1997	139.6	138	136.7	135.1	130.9	129.3	127.9	126.3	125	124	122.4	121.6	129.7
1998	118.9	116.1	113.8	110.9	109.4	108.6	107.3	105	104	102	101.8	100	108.2
1999	97.9	97.3	96.7	95	94.5	94	92.9	91.6	91.3	90.8	90.4	89.9	93.5
2000	88.8	88.4	87.7	87.1	86.2	85.9	86	85.3	85.1	85.2	85	84.2	86.3
2001	82.9	81.7	80.5	80.4	80	79.1	78.6	76.1	76.1	75.6	75	74.6	78.4
2002	72.6	71.5	71	70.8	70.3	69.4	68.4	67.5	67.1	66.4	65.6	65.4	68.9
2003	64.7	63.9	62.9	62.8	62.1	61.8	61.5	60.7	60.6	59.5	58.9	58.4	61.5
2004	58.2	57.9	57.7	57.7	57.2	56.6	56.5	56.3	55.9	55.7	54.5	54.6	56.6
2005	53.9	53.4(P)	53.1(P)	53.0(P)	52.3(P)								

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**6 Series Id: ECU11061I** **Source <http://www.bls.gov/ncs/ect/home.htm>**  
 Not Seasonally Adjusted  
 compensation: Total compensation  
 ownership: Civilian  
 periodicity: Index number  
 group: All workers, excluding sales occupations

Year	Qtr1	Qtr2	Qtr3	Qtr4	Annual
1995	125.2	125.9	126.9	127.5	
1996	128.6	129.4	130.5	131.2	
1997	132.1	133	134.2	135.3	
1998	136.4	137.4	138.8	139.5	
1999	140.5	141.7	143.2	144.5	
2000	146.3	147.7	149.4	150.5	
2001	152.5	153.8	155.6	156.8	
2002	158.4	159.7	161.3	162.2	
2003	164.6	165.9	167.7	168.6	
2004	170.8	172.3	173.9	175	
2005	176.9				

**ITS Unit Costs for Commercial Vehicle Administration (CA) and Commercial Vehicle Check Station (CC) (in 2004 dollars)  
As of July 31, 2005**

Index	Subsystem/Unit Cost Element	IDAS No.^	Lifetime* (years)	Capital Cost (\$K)		Adjusted From Date	O&M Cost (\$K/year)		Adjusted From Date	Description
				Low	High		Low	High		
				<b>Commercial Vehicle Administration (CA)</b>						
5	Commercial Vehicle Admin Hardware	CA001	5	9	12	2004	0.18	0.24	2004	Includes 3 workstations. O&M estimated at 2% of capital cost.
3	Commercial Vehicle Admin Software, Integration	CA002	20	192	211	1995	4	4.2	1995	Includes processor and integration. Software is COTS.
6	Commercial Vehicle Admin Labor	CA003					280	342	2003	Description is based on 1995 data: Labor for 4 staff @ 75K (average). Salary costs are fully loaded prices including base salary, overtime, overhead, benefits, etc.
3	Software Upgrade for Electronic Credential Purchasing	CA004	20	58	134	1995	1.2	2.7	1995	Electronic credentials purchase software, database and management for post-trip processing & E-credentials.
3	Software Upgrade for Inter-Agency Information Exchange	CA005	20	19	38	1995	0.4	0.8	1995	Processor and integration add-on. Software is COTS.
6	Added Labor for Inter-Agency Info Exchange	CA006					91	112	1995	Description is based on 1995 data: Labor for 1 staff @ 75K (average). Salary cost are fully loaded prices including base salary, overtime, benefits, etc.
3	Software Upgrade for Safety Administration	CA007	20	38	77	1995	0.8	1.5	1995	Database add-on, software, and integration. Software is COTS.
<b>Commercial Vehicle Check Station (CC)</b>										
4	Check Station Structure	CC001	20	59	88	1995				Roadside structure - mainline w/ lane indicator signals.
2	Signal Board	CC002	10	8	12	1995	0.8	1.2	1995	Roadside signal board.
2	Signal Indicator	CC003	20	4	8	1995	0.2	0.4	1995	Signal indicator system.
2	Roadside Beacon	CC004	10	4	6	1995	0.4	0.6	1995	Roadside beacon used for electronic screening (not included in roadside subsystem). Beacon repair/replacement.
1	Wireline to Roadside Beacon	CC005	20	9	18	1995				Dedicated wireline communication from beacon to roadside (1 mile upstream).
3	Check Station Software, Integration	CC006	20	173	207	1995				Software, processor and integration.
5	Check Station Hardware	CC007	5	3	4	2004	0.06	0.08	2004	Includes 1 workstation. O&M estimated at 2% of capital cost.
5	Safety and Fitness Electronic Records (SAFER) Data Mailbox			4.5	5.6	1999	0.27	0.4	1999	Includes portable computer with printer and wireless Internet modem to download, record, and upload carrier safety database records at field locations or check stations.
1	Detection System	CC008	10	46	69	1995	2.3	3.5	1995	Commercial vehicle communication interface and communication device (cell based radio).
3	Software Upgrade for Safety Inspection	CC009	20	38	77	1995	0.8	1.5	1995	Safety-database add-on, and result writing to vehicle tag processor add-on. Software is COTS.
2	Handheld Safety Devices	CC010	5	2	4	1995	0.2	0.4	1995	For commercial vehicle inspection. The devices either measure data themselves or read data from the vehicle. Three per location.
3	Software Upgrade for Citation and Accident Recording	CC011	20	19	38	1995	1	2	1995	Software add-on for recording of citation and accident information to the commercial vehicle.
3	Weigh-In-Motion Facility	CC012	10	13	20	1995	1.3	2	1995	Includes WIM fixed load cell and interface to roadside facility. Software is COTS.
1	Wireline to Weigh-In-Motion Facility	CC013	10	1	2	1995	0.1	0.2	1995	Wireline communication (local line).
* Not available for all unit cost elements										

**Notes**

This is the Notes page for the two commercial vehicle subsystems, Commercial Vehicle Administration (CA) and Commercial Vehicle Check Station (CC), that were replaced in the ITS Unit Costs Database. This file is for historical reference.

This Excel file contains 4 worksheets:

--Equipment List Not Adjusted - this is the cost data with the dollar year for capital and O&M cost identified. The header on this worksheet is "ITS Unit Costs for Commercial Vehilce Administration (CA) and Commercial Vehicle Check Stataion (CC) (as of July 31, 2005)."

--Indexes - this sheet contains the index series and ratio values used to adjust the cost data. Also, the year-by-year index for 1995 to 2004 for each series is provided. Users are advised that they can select other indexes they think may be more appropriate. The formulas are setup such that users can enter another index ratio and the calculations will be automatic. This page is formatted to print a total of 4 pages.

--Equipment List Adjusted 2004 - this is the adjusted cost data. The header for this worksheet is "ITS Unit Costs for Commercial Vehilce Administration (CA) and Commercial Vehicle Check Station (CC) (in 2004 dollars) As of July 31, 2005." The far left column "Index" contains a number. The number corresponds to the index on the Indexes worksheet and is the index used to adjust the capital and/or O&M cost values to 2004 dollars. The index is representative of the ITS element.

--Reference Notes - this worksheet.