

**ACHIEVING PUBLIC HEALTH IMPACT THROUGH RESEARCH (APHIR)
DEVELOPING INDEPENDENT GOVERNMENT COST ESTIMATES FOR
TIME AND MATERIALS OR LABOR HOUR CONTRACTS**

Detailed cost estimates need to be prepared by the Contracting Officer's Representative (COR)/Project Officer, although contracts and cost advisory personnel can often help with advice on approximate fully loaded time and materials or labor hour rates. It is critical to note that this **must be developed independently** and without direct input from contractors. The following step-by-step procedures can be used in developing detailed cost estimates, although if the statement of work has been written first, several of these steps will already have been accomplished.

1. Divide the effort into identifiable tasks or logical steps. Your IGCE **must include a discrete section for each identifiable task or option year as well as a total rolled up cost** for the entire effort.
2. List the categories of labor that will be required in each task or step. A list of labor categories for the APHIR Contract Mechanism can be found in Appendix 1: Labor Category Descriptions. In a "level of effort" acquisition, it is necessary to consider, in as much detail as possible, the categories of expertise desired and the training and experience that will be required for each category. This will yield a more accurate estimate.
3. Estimate the total effort from each labor category (hours) by task in terms of person.
4. Determine a rate to apply to the hours established in step 3. Time and materials or labor hour rates are fully loaded rates that include all indirect rates such as overhead and G&A as well as all profit, so these will not be calculated separately. Average labor rates per year may be found in Appendix 2: Average Hourly Labor Rates.
5. Multiply the number of person hours in each category (Step 3) by the estimated rate established in step 4. This will yield the estimated direct labor cost.
6. Estimate the amount and type of materials and supplies (if any) that will be required and the cost of each.
7. Estimate the travel requirements, if any. Identify the destinations, number of people involved, length of each trip, and total number of trips anticipated. Use this information to estimate the cost of the travel in terms of both transportation and per diem.
8. CORs may use historical data on previous projects that were similar in scope and size.
9. In the final section, BASIS FOR ESTIMATE AND ASSUMPTIONS USED IN PREPARATION OF ESTIMATE, clearly state how you developed your independent estimate. Is this based on a previous contract for the same or similar work? If yes, what was the contract number? Was it based on other knowledge of the market or market research? Fully describe that here. This sections is critical for determining the independence and validity of the estimate as well as explaining and documenting any discrepancies that may be later discovered if proposals received are substantially different from the estimate.

INDEPENDENT GOVERNMENT COST ESTIMATE

Independent Government Cost Estimate – Time and Material/Labor Hour Contract

Project Name and PR number (if available) FoodNet Population Survey, PR TBD

YEAR 1

<u>Labor by Category</u>	<u>Person Hours</u>		<u>Loaded Rate</u>	<u>Total</u>
Survey Scientist I	940 Hrs	X	\$ 89.52	\$84,148.80
Biostatistician I	329 Hrs	X	\$ 90.51	\$29,777.79
Computer Programmer I	235 Hrs	X	\$ 106.87	\$25,114.45

Total Labor Year 1 **\$139,041.04 (A)**

<u>Material Type</u>	<u>Amount</u>		<u>Cost</u>	<u>Total</u>
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____

Total Materials **\$ _____ (B)**

Other Direct Costs (All treated as material under
Travel and Per Diem (in accordance with FTR) \$ _____

Total Other Direct Costs **\$ _____ (C)**

TOTAL COSTS (A+B+C) Year 1 **\$139,041.04**

BASIS FOR ESTIMATE AND ASSUMPTIONS USED IN PREPARATION OF ESTIMATE:

1. Assumed 1880 hours represented full year
2. Assuming 50% of a Survey Scientist I for full year (940 hours)
3. Assuming 25% of Biostatistician I for first 6 months; 10% for next 6 mos
4. Assuming 25% of Computer Programmer I for last 6 months of initial contract period

INDEPENDENT GOVERNMENT COST ESTIMATE

FoodNet Population Survey, PR TBD

YEAR 2

<u>Labor by Category</u>	<u>Person Hours</u>		<u>Loaded Rate</u>	<u>Total</u>
Survey Scientist I	1880 Hrs	X	\$ 92.39	\$173,693.20
Biostatistician I	188 Hrs	X	\$ 93.44	\$ 17,566.72
Computer Programmer I	188 Hrs	X	\$110.31	\$ 20,738.28
Research Assistant I	9400 Hrs	X	\$ 72.21	\$678,774.00

Total Labor **\$890,772.20 (A)**

<u>Material Type</u>	<u>Amount</u>		<u>Cost</u>	<u>Total</u>
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____

Total Materials **\$ _____ (B)**

Other Direct Costs (All treated as material under
Travel and Per Diem (in accordance with FTR) \$ _____

Total Other Direct Costs **\$ _____ (C)**

TOTAL COSTS (A+B+C) Year 2 **\$890,772.20**

BASIS FOR ESTIMATE AND ASSUMPTIONS USED IN PREPARATION OF ESTIMATE:

1. Assumed 1880 hours represented full year
2. Assuming 100% of a Survey Scientist I for full year
3. Assuming 10% of Biostatistician I for full year
4. Assuming 10% of Computer Programmer I for full year
5. Assuming 100% of 5 Research Assistants I for full year

INDEPENDENT GOVERNMENT COST ESTIMATE

FoodNet Population Survey, PR TBD

YEAR 3

<u>Labor by Category</u>	<u>Person Hours</u>		<u>Loaded Rate</u>	<u>Total</u>
Survey Scientist I	1880 Hrs	X	\$ 95.36	\$179,276.80
Biostatistician I	188 Hrs	X	\$ 96.46	\$ 18,134.48
Computer Programmer I	188 Hrs	X	\$113.87	\$ 21,407.56
Research Assistant I	9400 Hrs	X	\$ 74.54	\$770,676.00

Total Labor **\$919,494.84 (A)**

<u>Material Type</u>	<u>Amount</u>		<u>Cost</u>	<u>Total</u>
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____

Total Materials **\$ _____ (B)**

Other Direct Costs (All treated as material under
Travel and Per Diem (in accordance with FTR) \$ _____

Total Other Direct Costs **\$ _____ (C)**

TOTAL COSTS (A+B+C) Year 3 **\$919,494.84**

BASIS FOR ESTIMATE AND ASSUMPTIONS USED IN PREPARATION OF ESTIMATE:

1. Assumed 1880 hours represented full year
2. Assuming 100% of a Survey Scientist I for full year
3. Assuming 10% of Biostatistician I for full year
4. Assuming 10% of Computer Programmer I for full year
5. Assuming 100% of 5 Research Assistants I for full year

INDEPENDENT GOVERNMENT COST ESTIMATE

FoodNet Population Survey, PR TBD

YEAR 4

<u>Labor by Category</u>	<u>Person Hours</u>		<u>Loaded Rate</u>	<u>Total</u>
Survey Scientist I	235 Hrs	X	\$ 98.43	\$23,131.05
Biostatistician I	94 Hrs	X	\$ 99.58	\$ 9,360.52
Computer Programmer I	94 Hrs	X	\$ 117.54	\$11,048.76

Total Labor **\$43,540.33 (A)**

<u>Material Type</u>	<u>Amount</u>		<u>Cost</u>	<u>Total</u>
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____
_____	_____	X	\$ _____	\$ _____

Total Materials **\$ _____ (B)**

Other Direct Costs (All treated as material under
Travel and Per Diem (in accordance with FTR) \$ _____

Total Other Direct Costs **\$ _____ (C)**

TOTAL COSTS (A+B+C) Year 4 **\$43,540.33**

BASIS FOR ESTIMATE AND ASSUMPTIONS USED IN PREPARATION OF ESTIMATE:

1. Assumed 1880 hours represents full year; assuming six months level of effort for Yr 4
2. Assuming 25% of a Survey Scientist I for six months
3. Assuming 10% of Biostatistician I for six months
4. Assuming 10% of Computer Programmer I for six months

Appendix 2: Average Hourly Labor Rates

Technical Labor Categories (direct billable labor categories)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	Average Hourly Labor Rate (12/2012-11/2013)	Average Hourly Labor Rate (12/2013-11/2014)	Average Hourly Labor Rate (12/2014-11/2015)	Average Hourly Labor Rate (12/2015-11/2016)	Average Hourly Labor Rate (12/2016-11/2017)	Average Hourly Labor Rate (12/2017-11/2018)	Average Hourly Labor Rate (12/2018-11/2019)	Average Hourly Labor Rate (12/2019-11/2020)	Average Hourly Labor Rate (12/2020-11/2021)	Average Hourly Labor Rate (12/2021-11/2022)
Admin/Conference Support	\$ 70.49	\$ 72.74	\$ 75.07	\$ 77.47	\$ 79.94	\$ 82.50	\$ 85.14	\$ 87.86	\$ 90.68	\$ 93.58
Assistant Program Manager I	\$ 86.08	\$ 88.89	\$ 91.79	\$ 94.79	\$ 97.89	\$ 101.10	\$ 104.41	\$ 107.83	\$ 111.36	\$ 115.01
Assistant Program Manager II	\$ 116.92	\$ 120.78	\$ 124.76	\$ 128.88	\$ 133.14	\$ 137.54	\$ 142.08	\$ 146.78	\$ 151.64	\$ 156.66
Assistant Program Manager III	\$ 150.04	\$ 154.94	\$ 159.99	\$ 165.21	\$ 170.60	\$ 176.17	\$ 181.93	\$ 187.87	\$ 194.02	\$ 200.36
Behavioral Scientist I	\$ 87.01	\$ 89.79	\$ 92.65	\$ 95.61	\$ 98.66	\$ 101.81	\$ 105.07	\$ 108.42	\$ 111.89	\$ 115.47
Behavioral Scientist II	\$ 108.23	\$ 111.67	\$ 115.22	\$ 118.89	\$ 122.67	\$ 126.57	\$ 130.60	\$ 134.76	\$ 139.05	\$ 143.48
Behavioral Scientist III	\$ 132.91	\$ 137.19	\$ 141.61	\$ 146.17	\$ 150.88	\$ 155.75	\$ 160.77	\$ 165.96	\$ 171.32	\$ 176.85
Biostatistician I	\$ 82.27	\$ 84.93	\$ 87.67	\$ 90.51	\$ 93.44	\$ 96.46	\$ 99.58	\$ 102.81	\$ 106.13	\$ 109.57
Biostatistician II	\$ 105.25	\$ 108.68	\$ 112.21	\$ 115.87	\$ 119.64	\$ 123.54	\$ 127.57	\$ 131.73	\$ 136.02	\$ 140.46
Biostatistician III	\$ 135.65	\$ 140.08	\$ 144.66	\$ 149.39	\$ 154.28	\$ 159.32	\$ 164.54	\$ 169.93	\$ 175.49	\$ 181.24
Computer Programmer I	\$ 97.18	\$ 100.31	\$ 103.54	\$ 106.87	\$ 110.31	\$ 113.87	\$ 117.54	\$ 121.33	\$ 125.24	\$ 129.27
Computer Programmer II	\$ 142.89	\$ 147.61	\$ 152.49	\$ 157.54	\$ 162.75	\$ 168.13	\$ 173.70	\$ 179.45	\$ 185.40	\$ 191.54
Computer Programmer III	\$ 177.83	\$ 183.68	\$ 189.74	\$ 195.99	\$ 202.44	\$ 209.12	\$ 216.02	\$ 223.14	\$ 230.50	\$ 238.11
Economist I	\$ 86.20	\$ 88.96	\$ 91.82	\$ 94.76	\$ 97.80	\$ 100.94	\$ 104.18	\$ 107.53	\$ 110.98	\$ 114.55
Economist II	\$ 100.45	\$ 103.67	\$ 107.00	\$ 110.44	\$ 113.99	\$ 117.65	\$ 121.43	\$ 125.33	\$ 129.36	\$ 133.52
Economist III	\$ 137.83	\$ 142.31	\$ 146.93	\$ 151.71	\$ 156.64	\$ 161.74	\$ 167.00	\$ 172.44	\$ 178.05	\$ 183.85
Epidemiologist I	\$ 85.00	\$ 87.72	\$ 90.54	\$ 93.44	\$ 96.44	\$ 99.54	\$ 102.73	\$ 106.03	\$ 109.44	\$ 112.96
Epidemiologist II	\$ 105.98	\$ 109.37	\$ 112.87	\$ 116.49	\$ 120.22	\$ 124.07	\$ 128.04	\$ 132.14	\$ 136.38	\$ 140.75
Epidemiologist III	\$ 140.71	\$ 145.25	\$ 149.95	\$ 154.79	\$ 159.80	\$ 164.96	\$ 170.30	\$ 175.81	\$ 181.50	\$ 187.37
Evaluation Specialist I	\$ 92.91	\$ 95.89	\$ 98.97	\$ 102.14	\$ 105.42	\$ 108.80	\$ 112.29	\$ 115.90	\$ 119.62	\$ 123.46
Evaluation Specialist II	\$ 111.24	\$ 114.80	\$ 118.46	\$ 122.25	\$ 126.16	\$ 130.20	\$ 134.36	\$ 138.66	\$ 143.09	\$ 147.67
Evaluation Specialist III	\$ 141.21	\$ 145.77	\$ 150.48	\$ 155.34	\$ 160.37	\$ 165.55	\$ 170.91	\$ 176.44	\$ 182.15	\$ 188.04
Program Director/Deputy I	\$ 151.63	\$ 156.53	\$ 161.58	\$ 166.80	\$ 172.19	\$ 177.76	\$ 183.51	\$ 189.44	\$ 195.57	\$ 201.90
Program Director/Deputy II	\$ 197.59	\$ 204.01	\$ 210.64	\$ 217.49	\$ 224.56	\$ 231.87	\$ 239.41	\$ 247.21	\$ 255.26	\$ 263.57
Program Director/Deputy III	\$ 237.88	\$ 245.58	\$ 253.54	\$ 261.76	\$ 270.25	\$ 279.01	\$ 288.06	\$ 297.41	\$ 307.07	\$ 317.04
Program Manager I	\$ 138.09	\$ 142.64	\$ 147.33	\$ 152.17	\$ 157.18	\$ 162.36	\$ 167.71	\$ 173.24	\$ 178.95	\$ 184.85
Program Manager II	\$ 175.16	\$ 180.88	\$ 186.78	\$ 192.87	\$ 199.17	\$ 205.67	\$ 212.39	\$ 219.33	\$ 226.50	\$ 233.91
Program Manager III	\$ 210.88	\$ 217.72	\$ 224.78	\$ 232.08	\$ 239.61	\$ 247.40	\$ 255.43	\$ 263.73	\$ 272.31	\$ 281.16
Public Health Analyst I	\$ 91.85	\$ 94.81	\$ 97.86	\$ 101.01	\$ 104.27	\$ 107.63	\$ 111.09	\$ 114.68	\$ 118.38	\$ 122.19
Public Health Analyst II	\$ 108.22	\$ 111.69	\$ 115.28	\$ 118.99	\$ 122.81	\$ 126.76	\$ 130.84	\$ 135.05	\$ 139.39	\$ 143.87
Public Health Analyst III	\$ 134.21	\$ 138.56	\$ 143.05	\$ 147.68	\$ 152.48	\$ 157.42	\$ 162.53	\$ 167.81	\$ 173.26	\$ 178.89
Research Assistant I	\$ 63.62	\$ 65.67	\$ 67.78	\$ 69.96	\$ 72.21	\$ 74.54	\$ 76.94	\$ 79.42	\$ 81.98	\$ 84.63
Research Assistant II	\$ 83.85	\$ 86.54	\$ 89.32	\$ 92.19	\$ 95.15	\$ 98.21	\$ 101.36	\$ 104.62	\$ 107.98	\$ 111.45

Research Assistant III	\$ 94.12	\$ 97.13	\$ 100.23	\$ 103.44	\$ 106.75	\$ 110.16	\$ 113.69	\$ 117.33	\$ 121.09	\$ 124.97
Research Scientist I	\$ 94.79	\$ 97.82	\$ 100.95	\$ 104.18	\$ 107.51	\$ 110.95	\$ 114.50	\$ 118.16	\$ 121.94	\$ 125.84
Research Scientist II	\$ 115.69	\$ 119.37	\$ 123.17	\$ 127.09	\$ 131.14	\$ 135.32	\$ 139.63	\$ 144.08	\$ 148.67	\$ 153.41
Research Scientist III	\$ 141.76	\$ 146.32	\$ 151.04	\$ 155.90	\$ 160.92	\$ 166.11	\$ 171.47	\$ 177.00	\$ 182.71	\$ 188.60
Senior Behavioral Scientist	\$ 226.42	\$ 233.79	\$ 241.41	\$ 249.28	\$ 257.40	\$ 265.80	\$ 274.47	\$ 283.42	\$ 292.68	\$ 302.23
Senior Biostatistician I	\$ 177.34	\$ 183.15	\$ 189.16	\$ 195.35	\$ 201.76	\$ 208.38	\$ 215.21	\$ 222.28	\$ 229.58	\$ 237.12
Senior Biostatistician II	\$ 228.47	\$ 235.90	\$ 243.57	\$ 251.50	\$ 259.69	\$ 268.15	\$ 276.89	\$ 285.91	\$ 295.23	\$ 304.86
Senior Economist I	\$ 171.78	\$ 177.40	\$ 183.21	\$ 189.20	\$ 195.40	\$ 201.80	\$ 208.42	\$ 215.25	\$ 222.31	\$ 229.61
Senior Economist II	\$ 216.53	\$ 223.56	\$ 230.81	\$ 238.31	\$ 246.05	\$ 254.04	\$ 262.30	\$ 270.82	\$ 279.63	\$ 288.72
Senior Epidemiologist I	\$ 159.85	\$ 165.07	\$ 170.47	\$ 176.05	\$ 181.80	\$ 187.76	\$ 193.90	\$ 200.25	\$ 206.82	\$ 213.60
Senior Epidemiologist II	\$ 208.35	\$ 215.09	\$ 222.05	\$ 229.25	\$ 236.68	\$ 244.35	\$ 252.27	\$ 260.45	\$ 268.90	\$ 277.63
Senior Evaluation Specialist I	\$ 180.48	\$ 186.36	\$ 192.44	\$ 198.72	\$ 205.20	\$ 211.89	\$ 218.81	\$ 225.96	\$ 233.34	\$ 240.96
Senior Evaluation Specialist II	\$ 224.42	\$ 231.70	\$ 239.22	\$ 246.99	\$ 255.01	\$ 263.30	\$ 271.85	\$ 280.69	\$ 289.82	\$ 299.24
Senior Public Health Analyst I	\$ 161.05	\$ 166.32	\$ 171.76	\$ 177.39	\$ 183.19	\$ 189.20	\$ 195.40	\$ 201.80	\$ 208.42	\$ 215.26
Senior Public Health Analyst II	\$ 209.55	\$ 216.35	\$ 223.38	\$ 230.64	\$ 238.13	\$ 245.87	\$ 253.87	\$ 262.13	\$ 270.65	\$ 279.46
Senior Research Scientist I	\$ 166.47	\$ 171.91	\$ 177.54	\$ 183.35	\$ 189.35	\$ 195.55	\$ 201.96	\$ 208.58	\$ 215.42	\$ 222.48
Senior Research Scientist II	\$ 224.36	\$ 231.64	\$ 239.17	\$ 246.93	\$ 254.95	\$ 263.24	\$ 271.79	\$ 280.63	\$ 289.75	\$ 299.18
Senior Survey Scientist I	\$ 144.81	\$ 149.57	\$ 154.49	\$ 159.57	\$ 164.83	\$ 170.25	\$ 175.86	\$ 181.66	\$ 187.65	\$ 193.84
Senior Survey Scientist II	\$ 180.33	\$ 186.21	\$ 192.29	\$ 198.57	\$ 205.05	\$ 211.76	\$ 218.68	\$ 225.83	\$ 233.21	\$ 240.85
Subject Matter Expert I	\$ 148.78	\$ 153.66	\$ 158.69	\$ 163.90	\$ 169.28	\$ 174.83	\$ 180.57	\$ 186.50	\$ 192.63	\$ 198.96
Subject Matter Expert II	\$ 182.72	\$ 188.67	\$ 194.81	\$ 201.16	\$ 207.72	\$ 214.49	\$ 221.49	\$ 228.71	\$ 236.17	\$ 243.88
Subject Matter Expert III	\$ 231.62	\$ 239.13	\$ 246.90	\$ 254.92	\$ 263.20	\$ 271.75	\$ 280.58	\$ 289.70	\$ 299.12	\$ 308.85
Subject Matter Expert IV	\$ 269.21	\$ 277.91	\$ 286.90	\$ 296.17	\$ 305.76	\$ 315.65	\$ 325.87	\$ 336.42	\$ 347.31	\$ 358.56
Survey Scientist I	\$ 81.41	\$ 84.03	\$ 86.73	\$ 89.52	\$ 92.39	\$ 95.36	\$ 98.43	\$ 101.60	\$ 104.87	\$ 108.25
Survey Scientist II	\$ 99.41	\$ 102.59	\$ 105.88	\$ 109.26	\$ 112.76	\$ 116.37	\$ 120.10	\$ 123.95	\$ 127.93	\$ 132.03
Survey Scientist III	\$ 127.67	\$ 131.81	\$ 136.09	\$ 140.50	\$ 145.06	\$ 149.77	\$ 154.64	\$ 159.66	\$ 164.84	\$ 170.20
Task Manager I	\$ 105.51	\$ 108.96	\$ 112.53	\$ 116.21	\$ 120.02	\$ 123.96	\$ 128.02	\$ 132.22	\$ 136.55	\$ 141.04
Task Manager II	\$ 144.00	\$ 148.74	\$ 153.64	\$ 158.70	\$ 163.93	\$ 169.33	\$ 174.91	\$ 180.68	\$ 186.64	\$ 192.80
Task Manager III	\$ 175.25	\$ 180.98	\$ 186.90	\$ 193.02	\$ 199.33	\$ 205.86	\$ 212.60	\$ 219.57	\$ 226.77	\$ 234.20
Training Specialist I	\$ 72.84	\$ 75.20	\$ 77.64	\$ 80.16	\$ 82.77	\$ 85.46	\$ 88.23	\$ 91.10	\$ 94.06	\$ 97.12
Training Specialist II	\$ 97.24	\$ 100.38	\$ 103.63	\$ 106.98	\$ 110.44	\$ 114.01	\$ 117.70	\$ 121.51	\$ 125.44	\$ 129.50
Training Specialist III	\$ 119.44	\$ 123.34	\$ 127.38	\$ 131.54	\$ 135.85	\$ 140.29	\$ 144.88	\$ 149.63	\$ 154.53	\$ 159.59
Writer/Editor I	\$ 76.35	\$ 78.83	\$ 81.38	\$ 84.02	\$ 86.74	\$ 89.56	\$ 92.47	\$ 95.46	\$ 98.56	\$ 101.76
Writer/Editor II	\$ 92.15	\$ 95.13	\$ 98.20	\$ 101.37	\$ 104.64	\$ 108.02	\$ 111.51	\$ 115.11	\$ 118.83	\$ 122.67
Writer/Editor III	\$ 132.03	\$ 136.36	\$ 140.84	\$ 145.46	\$ 150.24	\$ 155.18	\$ 160.28	\$ 165.55	\$ 171.00	\$ 176.63