**Code for ARIMA time-series analysis for the following paper:**

Stillbirths and the Race-Specific Gap in Neonatal Death among Extremely Preterm Births: A Conception Cohort Approach

Notes:

1. Codebook for variables appears in companion XLS datasheet
2. We use SCA software (<https://scausa.com/sca8.php>)
3. We provide /\*comments\*/ throughout; SCA, however, will not skip over comments. When running the code below in SCA in batch, you must delete all comments for the program to run successfully.

/\* input step for all 288 conception cohort months, Jan 1995 to Dec 2018\*/

input var ct,cyr,cmon,befdsr

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | 1995 | 1 | 1.158 |
| 2 | 1995 | 2 | 1.146 |
| 3 | 1995 | 3 | 1.672 |
| 4 | 1995 | 4 | 1.388 |
| 5 | 1995 | 5 | 1.213 |
| 6 | 1995 | 6 | 1.208 |
| 7 | 1995 | 7 | 1.263 |
| 8 | 1995 | 8 | 1.147 |
| 9 | 1995 | 9 | 1.246 |
| 10 | 1995 | 10 | 1.211 |
| 11 | 1995 | 11 | 1.351 |
| 12 | 1995 | 12 | 1.17 |
| 13 | 1996 | 1 | 1.201 |
| 14 | 1996 | 2 | 1.217 |
| 15 | 1996 | 3 | 1.31 |
| 16 | 1996 | 4 | 1.044 |
| 17 | 1996 | 5 | 1.137 |
| 18 | 1996 | 6 | 1.393 |
| 19 | 1996 | 7 | 1.33 |
| 20 | 1996 | 8 | 0.971 |
| 21 | 1996 | 9 | 1.145 |
| 22 | 1996 | 10 | 1.299 |
| 23 | 1996 | 11 | 1.382 |
| 24 | 1996 | 12 | 1.528 |
| 25 | 1997 | 1 | 1.304 |
| 26 | 1997 | 2 | 1.228 |
| 27 | 1997 | 3 | 1.394 |
| 28 | 1997 | 4 | 1.071 |
| 29 | 1997 | 5 | 1.16 |
| 30 | 1997 | 6 | 1.072 |
| 31 | 1997 | 7 | 1.098 |
| 32 | 1997 | 8 | 1.366 |
| 33 | 1997 | 9 | 1.328 |
| 34 | 1997 | 10 | 1.101 |
| 35 | 1997 | 11 | 1 |
| 36 | 1997 | 12 | 1.224 |
| 37 | 1998 | 1 | 1.297 |
| 38 | 1998 | 2 | 1.206 |
| 39 | 1998 | 3 | 1.174 |
| 40 | 1998 | 4 | 1.174 |
| 41 | 1998 | 5 | 1.081 |
| 42 | 1998 | 6 | 1.194 |
| 43 | 1998 | 7 | 1.371 |
| 44 | 1998 | 8 | 1.2 |
| 45 | 1998 | 9 | 1.241 |
| 46 | 1998 | 10 | 1.227 |
| 47 | 1998 | 11 | 1.393 |
| 48 | 1998 | 12 | 1.175 |
| 49 | 1999 | 1 | 1.672 |
| 50 | 1999 | 2 | 1.284 |
| 51 | 1999 | 3 | 1.189 |
| 52 | 1999 | 4 | 1.255 |
| 53 | 1999 | 5 | 1.457 |
| 54 | 1999 | 6 | 1.13 |
| 55 | 1999 | 7 | 1.096 |
| 56 | 1999 | 8 | 1.29 |
| 57 | 1999 | 9 | 1.526 |
| 58 | 1999 | 10 | 1.37 |
| 59 | 1999 | 11 | 1.283 |
| 60 | 1999 | 12 | 1.24 |
| 61 | 2000 | 1 | 1.152 |
| 62 | 2000 | 2 | 1.023 |
| 63 | 2000 | 3 | 1.258 |
| 64 | 2000 | 4 | 1.295 |
| 65 | 2000 | 5 | 1.722 |
| 66 | 2000 | 6 | 1.032 |
| 67 | 2000 | 7 | 1.426 |
| 68 | 2000 | 8 | 1.57 |
| 69 | 2000 | 9 | 1.287 |
| 70 | 2000 | 10 | 1.283 |
| 71 | 2000 | 11 | 1.4 |
| 72 | 2000 | 12 | 1.395 |
| 73 | 2001 | 1 | 1.379 |
| 74 | 2001 | 2 | 1.333 |
| 75 | 2001 | 3 | 1.203 |
| 76 | 2001 | 4 | 1.515 |
| 77 | 2001 | 5 | 1.352 |
| 78 | 2001 | 6 | 1.27 |
| 79 | 2001 | 7 | 1.609 |
| 80 | 2001 | 8 | 1.099 |
| 81 | 2001 | 9 | 1.182 |
| 82 | 2001 | 10 | 1.353 |
| 83 | 2001 | 11 | 1.207 |
| 84 | 2001 | 12 | 1.395 |
| 85 | 2002 | 1 | 1.019 |
| 86 | 2002 | 2 | 1.206 |
| 87 | 2002 | 3 | 0.988 |
| 88 | 2002 | 4 | 1.261 |
| 89 | 2002 | 5 | 1.197 |
| 90 | 2002 | 6 | 1.056 |
| 91 | 2002 | 7 | 1.095 |
| 92 | 2002 | 8 | 1.164 |
| 93 | 2002 | 9 | 1.392 |
| 94 | 2002 | 10 | 1.026 |
| 95 | 2002 | 11 | 1.298 |
| 96 | 2002 | 12 | 1.25 |
| 97 | 2003 | 1 | 1.043 |
| 98 | 2003 | 2 | 1.048 |
| 99 | 2003 | 3 | 0.927 |
| 100 | 2003 | 4 | 1.012 |
| 101 | 2003 | 5 | 1.22 |
| 102 | 2003 | 6 | 1.323 |
| 103 | 2003 | 7 | 1.496 |
| 104 | 2003 | 8 | 1.209 |
| 105 | 2003 | 9 | 1.216 |
| 106 | 2003 | 10 | 1.166 |
| 107 | 2003 | 11 | 1.256 |
| 108 | 2003 | 12 | 1.09 |
| 109 | 2004 | 1 | 1.377 |
| 110 | 2004 | 2 | 1.415 |
| 111 | 2004 | 3 | 1.169 |
| 112 | 2004 | 4 | 1.187 |
| 113 | 2004 | 5 | 1.145 |
| 114 | 2004 | 6 | 1.304 |
| 115 | 2004 | 7 | 1.292 |
| 116 | 2004 | 8 | 1.142 |
| 117 | 2004 | 9 | 1.168 |
| 118 | 2004 | 10 | 1.157 |
| 119 | 2004 | 11 | 1.289 |
| 120 | 2004 | 12 | 1.377 |
| 121 | 2005 | 1 | 1.042 |
| 122 | 2005 | 2 | 1.173 |
| 123 | 2005 | 3 | 1.058 |
| 124 | 2005 | 4 | 1.235 |
| 125 | 2005 | 5 | 1.116 |
| 126 | 2005 | 6 | 1.225 |
| 127 | 2005 | 7 | 1.411 |
| 128 | 2005 | 8 | 1.267 |
| 129 | 2005 | 9 | 1.217 |
| 130 | 2005 | 10 | 1.415 |
| 131 | 2005 | 11 | 1.348 |
| 132 | 2005 | 12 | 1.277 |
| 133 | 2006 | 1 | 1.131 |
| 134 | 2006 | 2 | 1.341 |
| 135 | 2006 | 3 | 1.274 |
| 136 | 2006 | 4 | 1.363 |
| 137 | 2006 | 5 | 1.35 |
| 138 | 2006 | 6 | 1.217 |
| 139 | 2006 | 7 | 1.031 |
| 140 | 2006 | 8 | 1.085 |
| 141 | 2006 | 9 | 1.219 |
| 142 | 2006 | 10 | 1.198 |
| 143 | 2006 | 11 | 1.304 |
| 144 | 2006 | 12 | 1.32 |
| 145 | 2007 | 1 | 1.157 |
| 146 | 2007 | 2 | 1.247 |
| 147 | 2007 | 3 | 1.277 |
| 148 | 2007 | 4 | 1.136 |
| 149 | 2007 | 5 | 1.366 |
| 150 | 2007 | 6 | 1.156 |
| 151 | 2007 | 7 | 1.179 |
| 152 | 2007 | 8 | 1.636 |
| 153 | 2007 | 9 | 1.168 |
| 154 | 2007 | 10 | 1.357 |
| 155 | 2007 | 11 | 1.198 |
| 156 | 2007 | 12 | 1.307 |
| 157 | 2008 | 1 | 1.063 |
| 158 | 2008 | 2 | 1.415 |
| 159 | 2008 | 3 | 1.254 |
| 160 | 2008 | 4 | 1.221 |
| 161 | 2008 | 5 | 1.351 |
| 162 | 2008 | 6 | 1.258 |
| 163 | 2008 | 7 | 1.718 |
| 164 | 2008 | 8 | 1.084 |
| 165 | 2008 | 9 | 1.254 |
| 166 | 2008 | 10 | 1.242 |
| 167 | 2008 | 11 | 1.262 |
| 168 | 2008 | 12 | 1.213 |
| 169 | 2009 | 1 | 1.2 |
| 170 | 2009 | 2 | 1.314 |
| 171 | 2009 | 3 | 1.467 |
| 172 | 2009 | 4 | 1.104 |
| 173 | 2009 | 5 | 1.413 |
| 174 | 2009 | 6 | 1.352 |
| 175 | 2009 | 7 | 1.154 |
| 176 | 2009 | 8 | 1.211 |
| 177 | 2009 | 9 | 1.172 |
| 178 | 2009 | 10 | 1.074 |
| 179 | 2009 | 11 | 1.338 |
| 180 | 2009 | 12 | 1.121 |
| 181 | 2010 | 1 | 1.252 |
| 182 | 2010 | 2 | 1.111 |
| 183 | 2010 | 3 | 1.262 |
| 184 | 2010 | 4 | 1.248 |
| 185 | 2010 | 5 | 1.132 |
| 186 | 2010 | 6 | 1.216 |
| 187 | 2010 | 7 | 1.021 |
| 188 | 2010 | 8 | 1.143 |
| 189 | 2010 | 9 | 1.132 |
| 190 | 2010 | 10 | 1.352 |
| 191 | 2010 | 11 | 1.057 |
| 192 | 2010 | 12 | 1.337 |
| 193 | 2011 | 1 | 1.326 |
| 194 | 2011 | 2 | 1.316 |
| 195 | 2011 | 3 | 1.351 |
| 196 | 2011 | 4 | 0.892 |
| 197 | 2011 | 5 | 1.233 |
| 198 | 2011 | 6 | 1.158 |
| 199 | 2011 | 7 | 0.992 |
| 200 | 2011 | 8 | 1.227 |
| 201 | 2011 | 9 | 1.239 |
| 202 | 2011 | 10 | 1.138 |
| 203 | 2011 | 11 | 1.137 |
| 204 | 2011 | 12 | 1.312 |
| 205 | 2012 | 1 | 1.04 |
| 206 | 2012 | 2 | 1.158 |
| 207 | 2012 | 3 | 1.4 |
| 208 | 2012 | 4 | 1.128 |
| 209 | 2012 | 5 | 1.153 |
| 210 | 2012 | 6 | 1.137 |
| 211 | 2012 | 7 | 1.406 |
| 212 | 2012 | 8 | 1.267 |
| 213 | 2012 | 9 | 1.302 |
| 214 | 2012 | 10 | 1.623 |
| 215 | 2012 | 11 | 1.273 |
| 216 | 2012 | 12 | 1.081 |
| 217 | 2013 | 1 | 1.142 |
| 218 | 2013 | 2 | 1.007 |
| 219 | 2013 | 3 | 1.184 |
| 220 | 2013 | 4 | 1.272 |
| 221 | 2013 | 5 | 1.122 |
| 222 | 2013 | 6 | 1.126 |
| 223 | 2013 | 7 | 1.22 |
| 224 | 2013 | 8 | 1.224 |
| 225 | 2013 | 9 | 1.203 |
| 226 | 2013 | 10 | 1.136 |
| 227 | 2013 | 11 | 1.397 |
| 228 | 2013 | 12 | 1.192 |
| 229 | 2014 | 1 | 1.246 |
| 230 | 2014 | 2 | 1.062 |
| 231 | 2014 | 3 | 1.042 |
| 232 | 2014 | 4 | 1.421 |
| 233 | 2014 | 5 | 1.179 |
| 234 | 2014 | 6 | 1.343 |
| 235 | 2014 | 7 | 0.993 |
| 236 | 2014 | 8 | 1.239 |
| 237 | 2014 | 9 | 1.347 |
| 238 | 2014 | 10 | 1.056 |
| 239 | 2014 | 11 | 1.026 |
| 240 | 2014 | 12 | 1.048 |
| 241 | 2015 | 1 | 1.064 |
| 242 | 2015 | 2 | 0.994 |
| 243 | 2015 | 3 | 1.221 |
| 244 | 2015 | 4 | 1.11 |
| 245 | 2015 | 5 | 1.238 |
| 246 | 2015 | 6 | 1.282 |
| 247 | 2015 | 7 | 1.161 |
| 248 | 2015 | 8 | 1.325 |
| 249 | 2015 | 9 | 1.092 |
| 250 | 2015 | 10 | 0.994 |
| 251 | 2015 | 11 | 1.066 |
| 252 | 2015 | 12 | 1.223 |
| 253 | 2016 | 1 | 1.12 |
| 254 | 2016 | 2 | 1.026 |
| 255 | 2016 | 3 | 0.928 |
| 256 | 2016 | 4 | 1.06 |
| 257 | 2016 | 5 | 1.1 |
| 258 | 2016 | 6 | 1.021 |
| 259 | 2016 | 7 | 1.101 |
| 260 | 2016 | 8 | 1.045 |
| 261 | 2016 | 9 | 1.148 |
| 262 | 2016 | 10 | 1.177 |
| 263 | 2016 | 11 | 1.111 |
| 264 | 2016 | 12 | 0.886 |
| 265 | 2017 | 1 | 0.958 |
| 266 | 2017 | 2 | 1.043 |
| 267 | 2017 | 3 | 1.294 |
| 268 | 2017 | 4 | 1.183 |
| 269 | 2017 | 5 | 1.12 |
| 270 | 2017 | 6 | 1.124 |
| 271 | 2017 | 7 | 1.29 |
| 272 | 2017 | 8 | 1.119 |
| 273 | 2017 | 9 | 1.13 |
| 274 | 2017 | 10 | 1.261 |
| 275 | 2017 | 11 | 1.118 |
| 276 | 2017 | 12 | 1.209 |
| 277 | 2018 | 1 | 1.199 |
| 278 | 2018 | 2 | 0.845 |
| 279 | 2018 | 3 | 1.087 |
| 280 | 2018 | 4 | 1.308 |
| 281 | 2018 | 5 | 0.953 |
| 282 | 2018 | 6 | 1.245 |
| 283 | 2018 | 7 | 1.235 |
| 284 | 2018 | 8 | 1 |
| 285 | 2018 | 9 | 0.87 |
| 286 | 2018 | 10 | 1.063 |
| 287 | 2018 | 11 | 0.942 |
| 288 | 2018 | 12 | 1.055 |

End

input var SND228BM,SND228BF,SND228WM,SND228WF

|  |  |  |  |
| --- | --- | --- | --- |
| 135 | 120 | 152 | 129 |
| 115 | 110 | 130 | 109 |
| 112 | 119 | 173 | 111 |
| 135 | 103 | 143 | 117 |
| 136 | 98 | 135 | 88 |
| 110 | 96 | 156 | 111 |
| 105 | 92 | 143 | 103 |
| 130 | 97 | 126 | 138 |
| 106 | 93 | 152 | 101 |
| 128 | 103 | 136 | 115 |
| 123 | 92 | 140 | 124 |
| 142 | 111 | 148 | 118 |
| 115 | 116 | 164 | 122 |
| 145 | 111 | 139 | 116 |
| 140 | 116 | 146 | 132 |
| 147 | 99 | 115 | 104 |
| 137 | 110 | 142 | 106 |
| 138 | 101 | 143 | 113 |
| 101 | 101 | 140 | 127 |
| 109 | 78 | 128 | 101 |
| 127 | 91 | 135 | 110 |
| 146 | 94 | 153 | 115 |
| 122 | 129 | 145 | 115 |
| 130 | 114 | 153 | 117 |
| 123 | 103 | 121 | 113 |
| 127 | 97 | 134 | 95 |
| 131 | 130 | 127 | 140 |
| 141 | 99 | 129 | 114 |
| 131 | 94 | 175 | 102 |
| 113 | 95 | 157 | 114 |
| 126 | 94 | 134 | 93 |
| 109 | 93 | 151 | 113 |
| 127 | 85 | 135 | 103 |
| 129 | 90 | 151 | 151 |
| 131 | 96 | 141 | 129 |
| 148 | 101 | 160 | 103 |
| 146 | 112 | 163 | 121 |
| 129 | 115 | 145 | 113 |
| 137 | 104 | 153 | 111 |
| 131 | 99 | 136 | 81 |
| 140 | 110 | 161 | 123 |
| 104 | 96 | 135 | 117 |
| 93 | 104 | 129 | 105 |
| 119 | 88 | 122 | 110 |
| 102 | 100 | 129 | 121 |
| 136 | 94 | 158 | 111 |
| 132 | 101 | 137 | 119 |
| 136 | 119 | 143 | 132 |
| 124 | 116 | 158 | 106 |
| 126 | 95 | 129 | 101 |
| 126 | 118 | 150 | 110 |
| 126 | 119 | 131 | 98 |
| 119 | 112 | 175 | 119 |
| 129 | 104 | 134 | 108 |
| 127 | 93 | 117 | 92 |
| 123 | 90 | 127 | 84 |
| 136 | 91 | 134 | 101 |
| 145 | 117 | 132 | 137 |
| 149 | 96 | 144 | 123 |
| 123 | 104 | 134 | 129 |
| 126 | 134 | 159 | 113 |
| 116 | 95 | 121 | 116 |
| 134 | 96 | 148 | 112 |
| 135 | 98 | 141 | 100 |
| 115 | 105 | 144 | 106 |
| 117 | 104 | 125 | 119 |
| 117 | 104 | 165 | 103 |
| 137 | 97 | 142 | 105 |
| 78 | 101 | 123 | 103 |
| 126 | 124 | 124 | 106 |
| 117 | 97 | 155 | 130 |
| 123 | 102 | 120 | 127 |
| 110 | 87 | 139 | 114 |
| 130 | 82 | 139 | 108 |
| 141 | 102 | 132 | 111 |
| 125 | 108 | 119 | 108 |
| 126 | 94 | 133 | 107 |
| 101 | 98 | 141 | 113 |
| 109 | 93 | 149 | 104 |
| 110 | 90 | 154 | 98 |
| 102 | 78 | 139 | 108 |
| 136 | 122 | 151 | 112 |
| 138 | 105 | 135 | 110 |
| 149 | 98 | 172 | 122 |
| 123 | 101 | 143 | 115 |
| 108 | 109 | 148 | 104 |
| 105 | 83 | 152 | 111 |
| 109 | 99 | 122 | 117 |
| 144 | 108 | 137 | 105 |
| 124 | 88 | 161 | 98 |
| 118 | 91 | 143 | 96 |
| 95 | 97 | 139 | 108 |
| 122 | 83 | 143 | 111 |
| 144 | 99 | 161 | 106 |
| 132 | 110 | 151 | 98 |
| 147 | 113 | 164 | 123 |
| 122 | 125 | 163 | 116 |
| 131 | 88 | 118 | 93 |
| 126 | 92 | 133 | 107 |
| 109 | 113 | 141 | 93 |
| 131 | 96 | 136 | 108 |
| 91 | 96 | 127 | 99 |
| 126 | 79 | 150 | 106 |
| 120 | 96 | 151 | 117 |
| 113 | 93 | 136 | 106 |
| 110 | 101 | 137 | 122 |
| 110 | 94 | 165 | 113 |
| 118 | 100 | 132 | 142 |
| 115 | 99 | 138 | 108 |
| 132 | 114 | 135 | 98 |
| 143 | 128 | 140 | 108 |
| 121 | 94 | 150 | 104 |
| 120 | 122 | 143 | 120 |
| 113 | 82 | 118 | 86 |
| 122 | 73 | 152 | 105 |
| 103 | 91 | 134 | 109 |
| 111 | 86 | 139 | 89 |
| 128 | 109 | 124 | 126 |
| 127 | 103 | 130 | 108 |
| 136 | 109 | 168 | 114 |
| 112 | 101 | 153 | 118 |
| 130 | 107 | 131 | 103 |
| 140 | 98 | 134 | 115 |
| 125 | 101 | 146 | 112 |
| 131 | 109 | 130 | 96 |
| 123 | 70 | 126 | 116 |
| 99 | 100 | 124 | 132 |
| 97 | 93 | 138 | 94 |
| 109 | 89 | 131 | 111 |
| 140 | 98 | 138 | 108 |
| 136 | 115 | 156 | 98 |
| 139 | 106 | 146 | 131 |
| 154 | 116 | 150 | 102 |
| 117 | 114 | 124 | 103 |
| 118 | 126 | 136 | 88 |
| 124 | 106 | 133 | 103 |
| 104 | 112 | 128 | 96 |
| 119 | 109 | 153 | 105 |
| 105 | 85 | 126 | 107 |
| 126 | 101 | 129 | 96 |
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| 136 | 81 | 144 | 121 |
| 143 | 111 | 146 | 125 |
| 150 | 125 | 149 | 130 |
| 126 | 97 | 159 | 98 |
| 136 | 85 | 124 | 110 |
| 129 | 104 | 144 | 109 |
| 121 | 96 | 127 | 89 |
| 113 | 101 | 133 | 78 |
| 117 | 108 | 144 | 103 |
| 135 | 108 | 123 | 114 |
| 92 | 90 | 132 | 82 |
| 109 | 114 | 129 | 97 |
| 112 | 90 | 134 | 100 |
| 111 | 91 | 126 | 112 |
| 140 | 106 | 157 | 95 |
| 127 | 95 | 139 | 103 |
| 125 | 91 | 129 | 98 |
| 122 | 95 | 133 | 95 |
| 121 | 94 | 123 | 91 |
| 108 | 107 | 126 | 97 |
| 109 | 76 | 126 | 91 |
| 101 | 93 | 128 | 110 |
| 97 | 100 | 96 | 98 |
| 107 | 84 | 118 | 107 |
| 113 | 98 | 141 | 113 |
| 123 | 105 | 110 | 104 |
| 146 | 93 | 128 | 99 |
| 111 | 89 | 122 | 78 |
| 120 | 81 | 107 | 83 |
| 115 | 89 | 113 | 99 |
| 110 | 86 | 102 | 100 |
| 121 | 81 | 126 | 86 |
| 99 | 80 | 132 | 87 |
| 99 | 79 | 117 | 83 |
| 94 | 85 | 110 | 103 |
| 86 | 76 | 105 | 84 |
| 105 | 92 | 111 | 82 |
| 95 | 80 | 124 | 105 |
| 113 | 76 | 131 | 116 |
| 108 | 89 | 132 | 102 |
| 90 | 82 | 108 | 108 |
| 115 | 94 | 108 | 98 |
| 95 | 91 | 125 | 97 |
| 88 | 79 | 95 | 104 |
| 87 | 70 | 114 | 92 |
| 85 | 85 | 114 | 84 |
| 78 | 67 | 96 | 81 |
| 94 | 79 | 118 | 84 |
| 104 | 97 | 129 | 96 |
| 105 | 94 | 121 | 76 |
| 103 | 82 | 107 | 106 |
| 131 | 86 | 116 | 100 |
| 96 | 85 | 80 | 70 |
| 117 | 82 | 119 | 106 |
| 95 | 87 | 99 | 89 |
| 105 | 85 | 108 | 96 |
| 94 | 80 | 105 | 89 |
| 72 | 64 | 92 | 97 |
| 88 | 54 | 110 | 79 |
| 107 | 86 | 112 | 90 |
| 102 | 75 | 113 | 92 |
| 109 | 71 | 112 | 95 |
| 96 | 75 | 118 | 99 |
| 91 | 76 | 106 | 98 |
| 104 | 98 | 100 | 75 |
| 118 | 99 | 97 | 90 |
| 90 | 79 | 128 | 102 |
| 99 | 70 | 122 | 78 |
| 87 | 82 | 106 | 75 |
| 85 | 78 | 104 | 69 |
| 78 | 60 | 91 | 106 |
| 69 | 72 | 113 | 91 |
| 91 | 91 | 109 | 77 |
| 82 | 73 | 124 | 87 |
| 106 | 87 | 119 | 96 |
| 104 | 78 | 108 | 97 |
| 101 | 90 | 113 | 69 |
| 98 | 90 | 94 | 97 |
| 106 | 86 | 103 | 90 |
| 95 | 67 | 117 | 97 |
| 93 | 67 | 104 | 73 |
| 86 | 62 | 104 | 74 |
| 79 | 80 | 116 | 70 |
| 96 | 77 | 93 | 105 |
| 98 | 82 | 131 | 79 |
| 88 | 77 | 126 | 95 |
| 114 | 90 | 108 | 102 |
| 87 | 95 | 111 | 104 |
| 88 | 77 | 103 | 87 |
| 98 | 69 | 100 | 91 |
| 99 | 70 | 117 | 70 |
| 84 | 82 | 102 | 78 |
| 83 | 75 | 107 | 82 |
| 79 | 73 | 112 | 66 |
| 96 | 76 | 92 | 73 |
| 96 | 77 | 101 | 70 |
| 89 | 87 | 95 | 89 |
| 121 | 86 | 107 | 102 |
| 93 | 80 | 90 | 109 |
| 89 | 96 | 101 | 103 |
| 90 | 75 | 87 | 85 |
| 97 | 85 | 113 | 92 |
| 107 | 79 | 106 | 84 |
| 100 | 71 | 79 | 82 |
| 86 | 66 | 86 | 75 |
| 87 | 85 | 95 | 86 |
| 89 | 68 | 102 | 77 |
| 92 | 70 | 109 | 83 |
| 101 | 85 | 112 | 87 |
| 93 | 81 | 108 | 85 |
| 86 | 85 | 122 | 98 |
| 105 | 91 | 106 | 90 |
| 90 | 68 | 83 | 77 |
| 100 | 66 | 103 | 73 |
| 87 | 75 | 93 | 89 |
| 109 | 75 | 81 | 76 |
| 91 | 82 | 93 | 53 |
| 95 | 63 | 106 | 76 |
| 97 | 72 | 93 | 71 |
| 80 | 78 | 84 | 71 |
| 94 | 68 | 84 | 83 |
| 90 | 78 | 107 | 79 |
| 98 | 69 | 116 | 79 |
| 80 | 85 | 110 | 84 |
| 85 | 67 | 90 | 51 |
| 90 | 86 | 94 | 69 |
| 89 | 63 | 85 | 74 |
| 82 | 72 | 102 | 82 |
| 89 | 62 | 80 | 67 |
| 64 | 73 | 94 | 67 |
| 87 | 78 | 102 | 88 |
| 97 | 61 | 101 | 59 |
| 85 | 80 | 100 | 82 |
| 73 | 75 | 96 | 68 |
| 87 | 66 | 80 | 58 |
| 94 | 56 | 103 | 84 |
| 84 | 73 | 81 | 72 |
| 93 | 90 | 77 | 80 |
| 94 | 56 | 111 | 86 |
| 100 | 70 | 83 | 75 |
| 89 | 71 | 89 | 55 |
| 71 | 67 | 92 | 53 |
| 61 | 60 | 90 | 75 |
| 69 | 65 | 96 | 73 |
| 90 | 88 | 99 | 83 |
| 86 | 75 | 103 | 67 |
| 102 | 76 | 90 | 72 |

End

input var SLB228BM,SLB228BF,SLB228WM,SLB228WF

|  |  |  |  |
| --- | --- | --- | --- |
| 387 | 351 | 382 | 356 |
| 315 | 326 | 353 | 302 |
| 367 | 331 | 406 | 317 |
| 406 | 333 | 389 | 315 |
| 382 | 321 | 376 | 325 |
| 342 | 334 | 398 | 311 |
| 356 | 310 | 380 | 338 |
| 335 | 303 | 352 | 335 |
| 357 | 325 | 363 | 305 |
| 372 | 331 | 421 | 336 |
| 368 | 370 | 391 | 351 |
| 413 | 328 | 390 | 345 |
| 355 | 350 | 388 | 359 |
| 386 | 348 | 371 | 301 |
| 391 | 347 | 385 | 324 |
| 389 | 324 | 344 | 285 |
| 386 | 349 | 338 | 308 |
| 387 | 338 | 386 | 336 |
| 330 | 304 | 360 | 334 |
| 307 | 272 | 349 | 296 |
| 367 | 309 | 366 | 327 |
| 380 | 314 | 417 | 346 |
| 394 | 371 | 411 | 306 |
| 374 | 380 | 405 | 337 |
| 375 | 307 | 360 | 317 |
| 352 | 337 | 389 | 286 |
| 402 | 371 | 361 | 346 |
| 390 | 338 | 380 | 316 |
| 386 | 345 | 432 | 325 |
| 370 | 312 | 392 | 323 |
| 383 | 354 | 380 | 288 |
| 304 | 296 | 383 | 332 |
| 368 | 315 | 378 | 333 |
| 385 | 318 | 394 | 387 |
| 412 | 348 | 402 | 377 |
| 398 | 320 | 437 | 342 |
| 388 | 379 | 416 | 354 |
| 354 | 344 | 366 | 328 |
| 383 | 340 | 403 | 331 |
| 347 | 356 | 385 | 293 |
| 372 | 370 | 386 | 352 |
| 342 | 341 | 387 | 342 |
| 364 | 336 | 370 | 309 |
| 331 | 293 | 357 | 291 |
| 353 | 308 | 392 | 337 |
| 392 | 339 | 423 | 341 |
| 369 | 359 | 396 | 339 |
| 408 | 381 | 414 | 382 |
| 370 | 337 | 400 | 335 |
| 369 | 323 | 363 | 306 |
| 365 | 361 | 409 | 306 |
| 376 | 382 | 385 | 333 |
| 380 | 344 | 423 | 328 |
| 392 | 351 | 372 | 304 |
| 385 | 318 | 336 | 311 |
| 343 | 319 | 353 | 281 |
| 397 | 332 | 404 | 320 |
| 383 | 365 | 413 | 362 |
| 403 | 362 | 402 | 351 |
| 357 | 373 | 387 | 350 |
| 366 | 372 | 393 | 313 |
| 396 | 309 | 348 | 356 |
| 397 | 312 | 401 | 305 |
| 379 | 332 | 373 | 325 |
| 366 | 340 | 374 | 304 |
| 343 | 350 | 374 | 313 |
| 380 | 313 | 417 | 333 |
| 352 | 309 | 367 | 314 |
| 335 | 362 | 368 | 319 |
| 375 | 357 | 365 | 342 |
| 331 | 293 | 407 | 364 |
| 368 | 356 | 384 | 352 |
| 323 | 283 | 392 | 333 |
| 377 | 293 | 346 | 267 |
| 391 | 329 | 370 | 311 |
| 371 | 322 | 354 | 344 |
| 352 | 311 | 379 | 346 |
| 352 | 320 | 391 | 340 |
| 357 | 293 | 394 | 325 |
| 339 | 295 | 362 | 292 |
| 339 | 297 | 388 | 364 |
| 383 | 355 | 395 | 310 |
| 362 | 310 | 413 | 332 |
| 385 | 340 | 403 | 328 |
| 341 | 325 | 403 | 334 |
| 346 | 326 | 378 | 302 |
| 332 | 302 | 368 | 310 |
| 349 | 324 | 357 | 316 |
| 379 | 355 | 383 | 299 |
| 343 | 291 | 419 | 292 |
| 335 | 303 | 372 | 320 |
| 304 | 324 | 360 | 312 |
| 344 | 278 | 401 | 348 |
| 370 | 353 | 408 | 322 |
| 348 | 373 | 394 | 307 |
| 405 | 340 | 439 | 367 |
| 349 | 332 | 405 | 326 |
| 344 | 304 | 356 | 294 |
| 365 | 330 | 372 | 328 |
| 319 | 328 | 383 | 310 |
| 362 | 317 | 385 | 322 |
| 303 | 347 | 369 | 292 |
| 328 | 310 | 420 | 325 |
| 322 | 321 | 384 | 334 |
| 327 | 336 | 397 | 338 |
| 339 | 323 | 390 | 350 |
| 301 | 336 | 425 | 347 |
| 352 | 319 | 396 | 379 |
| 353 | 275 | 352 | 358 |
| 350 | 342 | 386 | 307 |
| 378 | 353 | 397 | 323 |
| 339 | 347 | 400 | 326 |
| 362 | 350 | 400 | 353 |
| 358 | 324 | 379 | 300 |
| 332 | 284 | 388 | 342 |
| 319 | 306 | 357 | 314 |
| 374 | 319 | 424 | 296 |
| 358 | 365 | 358 | 340 |
| 382 | 372 | 402 | 350 |
| 412 | 394 | 422 | 360 |
| 374 | 327 | 397 | 342 |
| 346 | 343 | 356 | 302 |
| 387 | 300 | 397 | 320 |
| 368 | 362 | 429 | 344 |
| 381 | 356 | 373 | 329 |
| 362 | 294 | 381 | 343 |
| 317 | 326 | 384 | 357 |
| 298 | 297 | 372 | 328 |
| 348 | 331 | 365 | 357 |
| 351 | 322 | 395 | 332 |
| 389 | 351 | 422 | 343 |
| 408 | 373 | 439 | 402 |
| 440 | 351 | 418 | 351 |
| 383 | 370 | 370 | 318 |
| 398 | 352 | 377 | 285 |
| 352 | 352 | 378 | 345 |
| 371 | 342 | 395 | 335 |
| 332 | 368 | 409 | 353 |
| 349 | 325 | 384 | 351 |
| 351 | 337 | 361 | 305 |
| 403 | 324 | 425 | 355 |
| 402 | 334 | 404 | 343 |
| 407 | 388 | 434 | 398 |
| 474 | 392 | 393 | 371 |
| 393 | 371 | 436 | 363 |
| 384 | 307 | 367 | 325 |
| 397 | 341 | 378 | 332 |
| 374 | 405 | 374 | 319 |
| 375 | 336 | 416 | 322 |
| 382 | 372 | 414 | 356 |
| 393 | 359 | 386 | 366 |
| 276 | 289 | 390 | 331 |
| 361 | 364 | 377 | 340 |
| 360 | 329 | 408 | 328 |
| 355 | 311 | 382 | 337 |
| 410 | 345 | 418 | 321 |
| 357 | 350 | 393 | 312 |
| 364 | 310 | 348 | 312 |
| 365 | 309 | 375 | 283 |
| 379 | 332 | 359 | 310 |
| 347 | 320 | 358 | 333 |
| 372 | 319 | 366 | 329 |
| 353 | 293 | 349 | 324 |
| 328 | 322 | 333 | 329 |
| 341 | 292 | 365 | 336 |
| 359 | 326 | 421 | 330 |
| 384 | 360 | 376 | 360 |
| 385 | 368 | 380 | 319 |
| 358 | 328 | 371 | 308 |
| 345 | 325 | 352 | 248 |
| 308 | 322 | 336 | 299 |
| 340 | 316 | 340 | 314 |
| 367 | 333 | 391 | 299 |
| 339 | 289 | 365 | 325 |
| 324 | 294 | 344 | 302 |
| 304 | 309 | 350 | 298 |
| 320 | 307 | 386 | 323 |
| 330 | 322 | 347 | 306 |
| 316 | 314 | 406 | 316 |
| 348 | 310 | 402 | 339 |
| 339 | 330 | 395 | 340 |
| 313 | 319 | 345 | 325 |
| 358 | 332 | 338 | 281 |
| 335 | 348 | 349 | 292 |
| 324 | 292 | 325 | 332 |
| 303 | 275 | 361 | 286 |
| 305 | 301 | 345 | 280 |
| 286 | 265 | 317 | 287 |
| 313 | 308 | 370 | 300 |
| 346 | 305 | 369 | 300 |
| 363 | 329 | 377 | 308 |
| 355 | 308 | 348 | 341 |
| 362 | 308 | 363 | 316 |
| 323 | 333 | 265 | 275 |
| 361 | 293 | 316 | 320 |
| 338 | 306 | 341 | 317 |
| 331 | 326 | 347 | 282 |
| 304 | 292 | 314 | 269 |
| 268 | 280 | 349 | 313 |
| 278 | 264 | 330 | 275 |
| 333 | 290 | 372 | 304 |
| 304 | 299 | 343 | 338 |
| 342 | 310 | 344 | 320 |
| 327 | 301 | 360 | 331 |
| 311 | 312 | 358 | 322 |
| 330 | 310 | 324 | 295 |
| 359 | 318 | 310 | 288 |
| 320 | 320 | 371 | 313 |
| 347 | 302 | 379 | 298 |
| 295 | 313 | 361 | 300 |
| 293 | 298 | 358 | 270 |
| 269 | 279 | 322 | 304 |
| 310 | 289 | 358 | 270 |
| 329 | 310 | 331 | 279 |
| 308 | 311 | 365 | 290 |
| 341 | 313 | 364 | 302 |
| 348 | 279 | 360 | 309 |
| 322 | 309 | 321 | 260 |
| 314 | 332 | 322 | 284 |
| 316 | 289 | 355 | 306 |
| 316 | 276 | 376 | 307 |
| 316 | 273 | 328 | 291 |
| 299 | 246 | 368 | 313 |
| 254 | 259 | 341 | 275 |
| 324 | 275 | 325 | 351 |
| 303 | 298 | 365 | 289 |
| 311 | 301 | 383 | 336 |
| 357 | 310 | 360 | 294 |
| 289 | 283 | 357 | 328 |
| 305 | 258 | 297 | 292 |
| 310 | 282 | 313 | 277 |
| 305 | 327 | 360 | 290 |
| 321 | 292 | 336 | 269 |
| 314 | 269 | 366 | 282 |
| 325 | 292 | 336 | 241 |
| 314 | 275 | 292 | 274 |
| 317 | 279 | 329 | 296 |
| 322 | 315 | 317 | 320 |
| 351 | 298 | 351 | 311 |
| 351 | 318 | 340 | 345 |
| 320 | 302 | 347 | 320 |
| 308 | 297 | 308 | 295 |
| 297 | 294 | 335 | 293 |
| 324 | 277 | 341 | 283 |
| 309 | 272 | 304 | 292 |
| 338 | 275 | 311 | 293 |
| 305 | 287 | 335 | 316 |
| 268 | 284 | 315 | 287 |
| 287 | 280 | 350 | 305 |
| 330 | 329 | 339 | 322 |
| 313 | 298 | 345 | 320 |
| 310 | 302 | 360 | 336 |
| 324 | 302 | 348 | 294 |
| 299 | 300 | 319 | 281 |
| 313 | 279 | 335 | 245 |
| 306 | 302 | 320 | 282 |
| 314 | 276 | 308 | 260 |
| 298 | 280 | 312 | 247 |
| 298 | 264 | 355 | 298 |
| 297 | 248 | 290 | 266 |
| 291 | 293 | 314 | 295 |
| 301 | 255 | 319 | 296 |
| 336 | 287 | 339 | 288 |
| 333 | 291 | 353 | 289 |
| 296 | 312 | 333 | 300 |
| 298 | 249 | 310 | 258 |
| 310 | 324 | 289 | 255 |
| 304 | 302 | 289 | 279 |
| 292 | 298 | 310 | 278 |
| 303 | 267 | 297 | 262 |
| 288 | 264 | 321 | 287 |
| 240 | 288 | 306 | 270 |
| 304 | 276 | 348 | 263 |
| 296 | 268 | 320 | 286 |
| 269 | 321 | 304 | 263 |
| 342 | 297 | 322 | 279 |
| 320 | 284 | 355 | 250 |
| 300 | 264 | 260 | 249 |
| 296 | 317 | 265 | 272 |
| 315 | 280 | 311 | 277 |
| 336 | 278 | 282 | 261 |
| 297 | 275 | 285 | 253 |
| 269 | 294 | 287 | 259 |
| 254 | 235 | 308 | 259 |
| 249 | 274 | 304 | 272 |
| 311 | 320 | 306 | 279 |
| 297 | 333 | 310 | 267 |
| 305 | 321 | 318 | 286 |

End

Pro out brief

Workspace contents

Workspace compressed. Novar 500

/\* derive high outlier values for stillbirth sex ratio, NH Black\*/

Uts nam moda. Mod befdsr=con+(9)/(3)noise

Ues mod moda. Hol resi (modar)

Uid modar

Oes mod moda. Ost cri (2.83). new v1,v2,v3,v4,v5

Rec old v4. New v4bh. Val (.0001,1000,1)(-1000,0,0)

/\* calculate incidence of neonatal death among <28 week live births, by race/ethnicity and sex \*/

Isndbm= snd228bm /slb228bm

Isndwm= snd228wm /slb228wm

Isndbf= snd228bf /slb228bf

Isndwf= snd228wf /slb228wf

/\* calculate difference in incidence of neonatal death White minus NH Black, by sex \*/

iwbdiff= Isndwm- Isndbm

imfbdiff= Isndbm- Isndbf

/\* test relation between high outliers in stillbirth sex ratio and the racial/ethnic difference in incidence of neonatal death (for males)\*/

uts nam mod52. Mod iwbdiff=con+(0)v4bh+noise

Ues mod mod52. Hol resi (mod52r)

Uid mod52r

/\* robustness check; outcome is now NH Black male minus NH Black female difference in incidence of neonatal death \*/

uts nam mod53. Mod imfbdiff =con+(0)v4bh+noise

ues mod mod53. Hol res(mod53r)

uid mod53r