

Solution Overview Report for Scenario nogamma

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Report Generated on August 7, 2024

1 Introduction

This report gives an overview of the solution found for the Irish Constituency Reassignment problem, it also presents details of selected solutions. The problem, a model and the relevant data are described in a companion report.

This version of the analysis considers solutions for a fixed number of seats, and a variable \pm delta in the population per seat for each county.

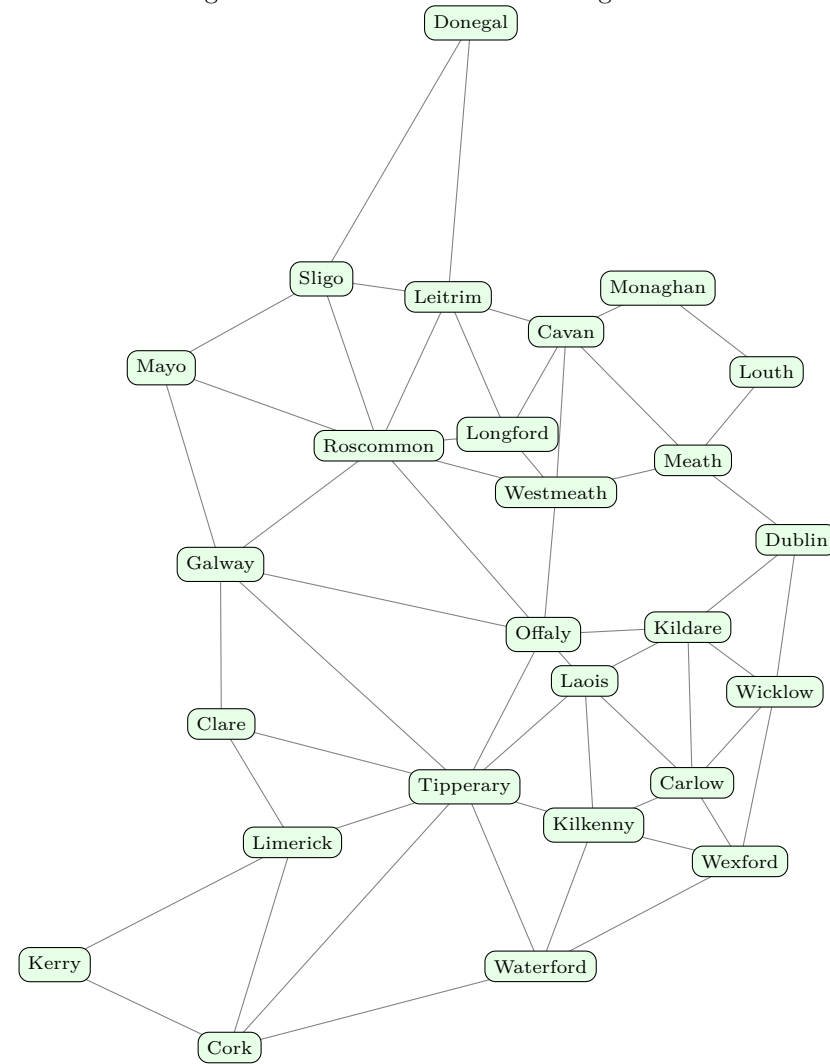
This scenario has 174 seats in total. The scenario does not assign a cost to the different sizes of constituencies, i.e. the gamma weight factors are zero.

Figure 1 shows a schematic map of the counties in Ireland, with lines indicating that two counties are neighbors, and a reassignment of population from one county to the neighbor can be considered. The positions of the county labels are based on the centroid point of the counties in the map of Ireland.

We also use this map layout in the visualization of the results. We draw two versions, one shows the number of seats allocated, and the number of constituencies of different types created. The nodes are colored by the number of seats given. Transfers between counties are marked by arrows, arrows colored in red indicate that the complete county is transferred to another county. Arrows in gray also show the percentage of the population of the 'from' county transferred to the 'to' county.

The second type of map shows the variation in the number of persons per seat, expressed as a percentage of the overall target average. A green color indicates that the number is below the average, a yellow color indicates that the value is above average. Counties for which the achieved variation is within 1 percent of the maximum delta allowed are outlined in red.

Figure 1: Ireland: Counties and Neighbors

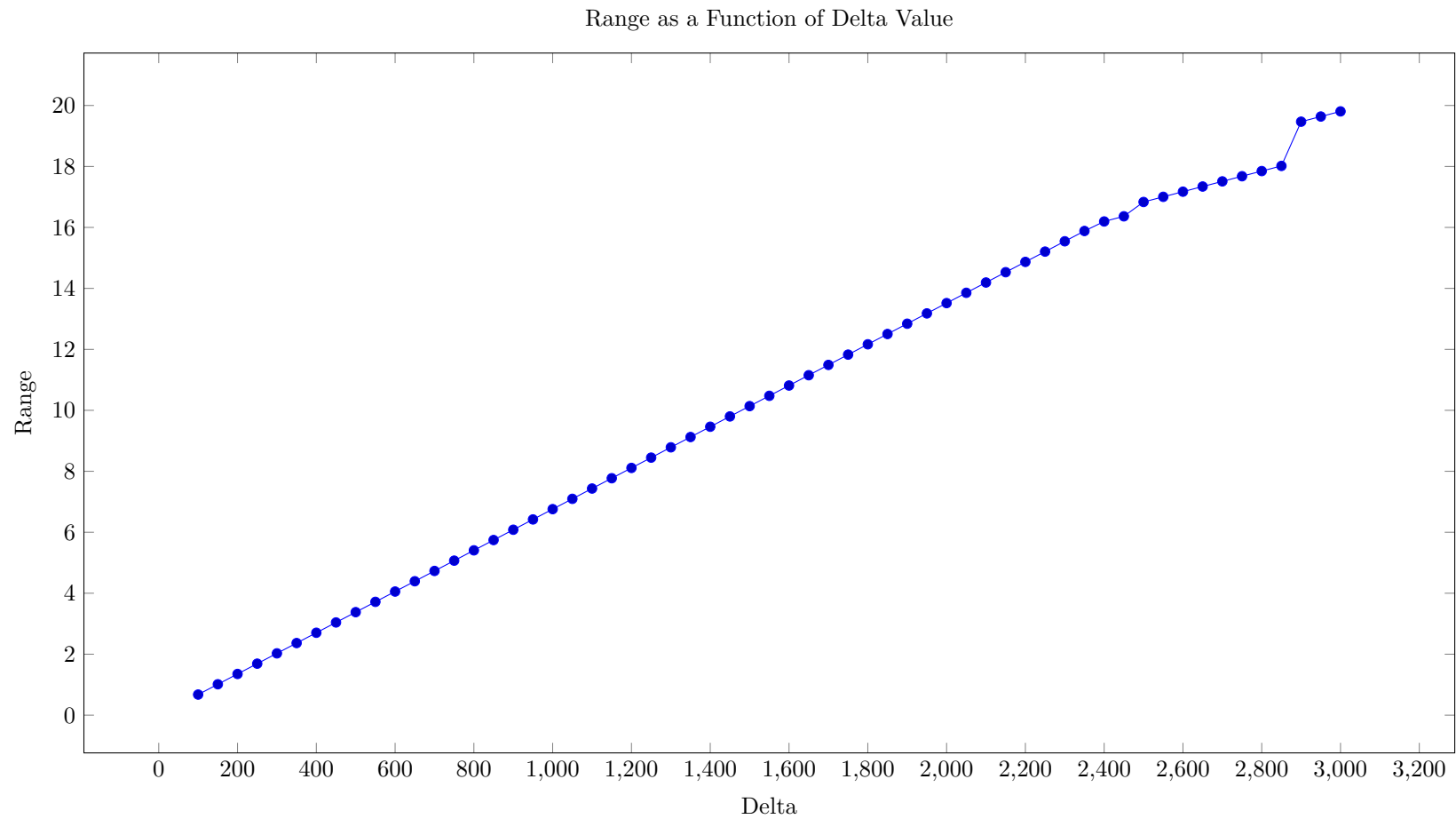


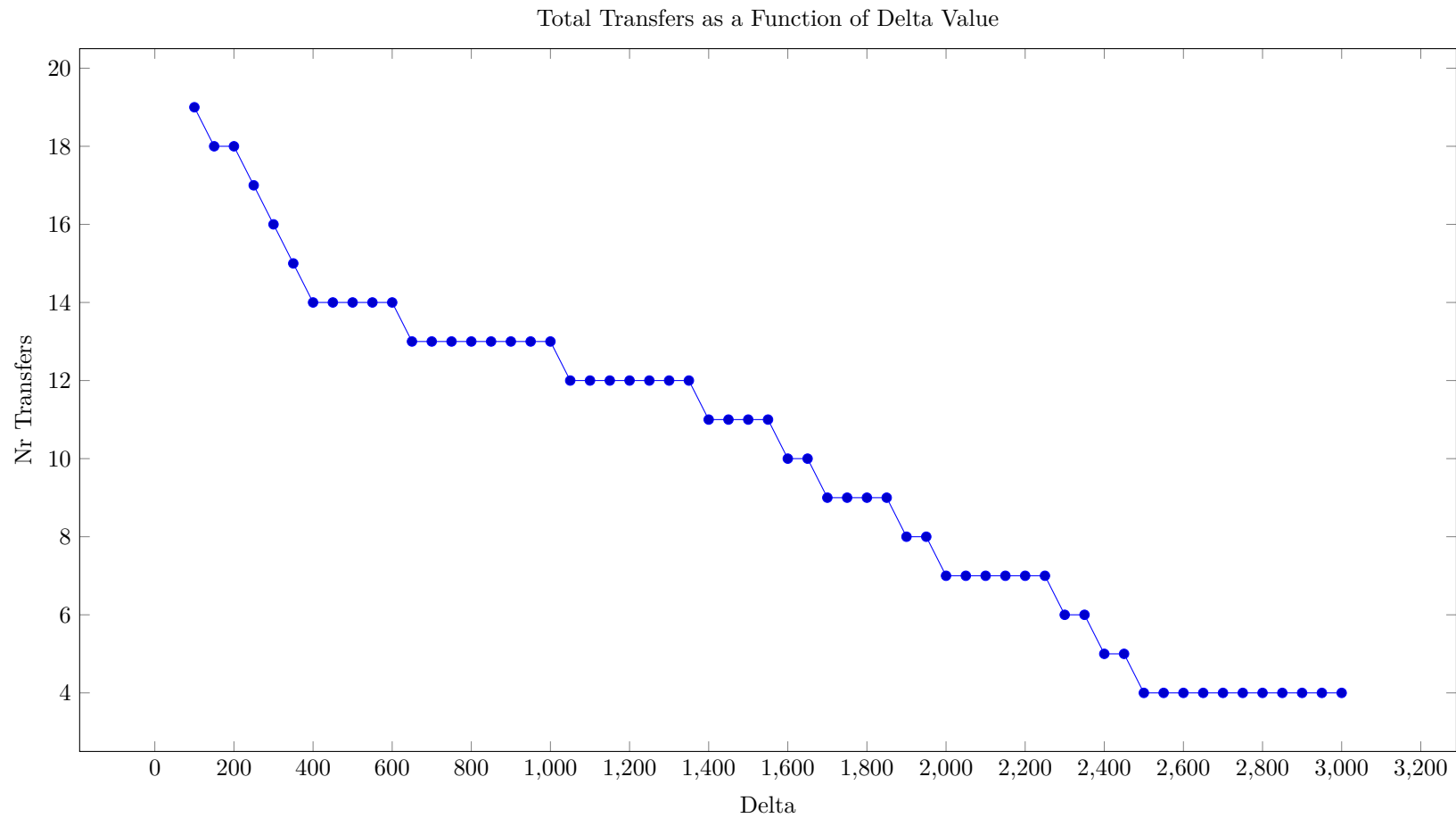
Solution Overview

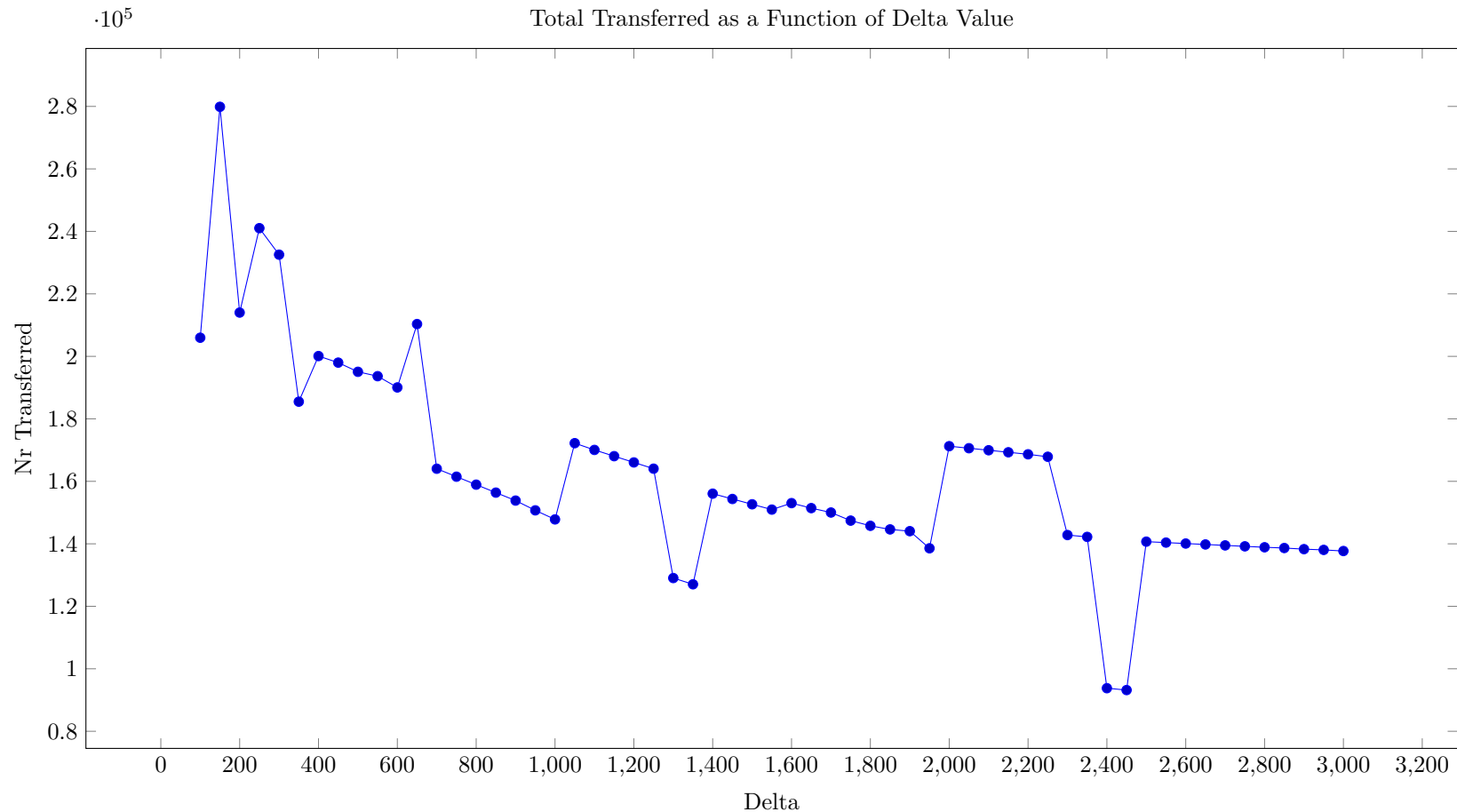
Table 1: Solutions

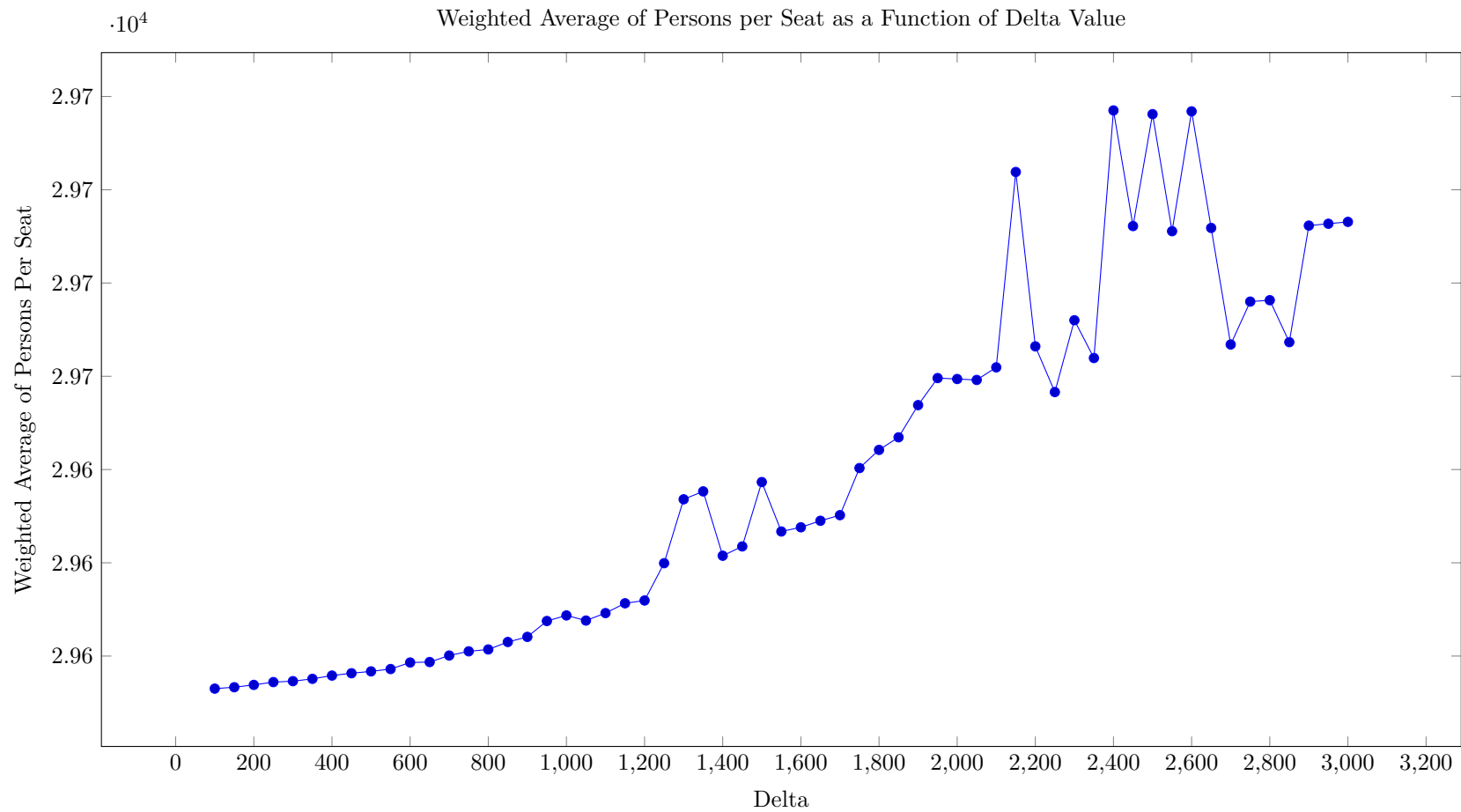
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol1 | 174 | 100 | 0.34 | 0.68 | 29,492.00 | 29,692.00 | 29,592.96 | 6,078.03 | 0.24 | 19 | 205,964 | 44 | 16/14/14 | 3.95 | Solution | 303.88 | 31.9836 |
| Sol2 | 174 | 150 | 0.51 | 1.01 | 29,442.00 | 29,742.00 | 29,593.35 | 17,571.41 | 0.41 | 18 | 279,872 | 44 | 18/10/16 | 3.95 | Solution | 302.91 | 22.1502 |
| Sol3 | 174 | 200 | 0.68 | 1.35 | 29,392.00 | 29,792.00 | 29,593.77 | 30,224.74 | 0.53 | 18 | 214,016 | 45 | 15/21/9 | 3.87 | Solution | 304.28 | 27.4703 |
| Sol4 | 174 | 250 | 0.84 | 1.69 | 29,342.00 | 29,842.00 | 29,594.37 | 47,839.55 | 0.67 | 17 | 241,029 | 44 | 11/24/9 | 3.95 | Solution | 303.51 | 20.1917 |
| Sol5 | 174 | 300 | 1.01 | 2.03 | 29,292.00 | 29,892.00 | 29,594.56 | 53,514.29 | 0.70 | 16 | 232,545 | 45 | 14/23/8 | 3.87 | Solution | 302.96 | 13.4354 |
| Sol6 | 174 | 350 | 1.18 | 2.37 | 29,242.00 | 29,942.00 | 29,595.12 | 69,937.67 | 0.80 | 15 | 185,497 | 45 | 17/17/11 | 3.87 | Solution | 300.09 | 5.4072 |
| Sol7 | 174 | 400 | 1.35 | 2.70 | 29,192.00 | 29,992.00 | 29,595.75 | 88,988.56 | 0.91 | 14 | 200,095 | 47 | 18/25/4 | 3.70 | Optimal | 150.82 | 0.0100 |
| Sol8 | 174 | 450 | 1.52 | 3.04 | 29,142.00 | 30,042.00 | 29,596.33 | 106,409.03 | 0.99 | 14 | 197,995 | 42 | 13/10/19 | 4.14 | Solution | 302.61 | 4.7901 |
| Sol9 | 174 | 500 | 1.69 | 3.38 | 29,092.00 | 30,092.00 | 29,596.74 | 118,044.23 | 0.93 | 14 | 195,056 | 51 | 36/9/6 | 3.41 | Solution | 300.30 | 0.8237 |
| Sol10 | 174 | 550 | 1.86 | 3.72 | 29,042.00 | 30,142.00 | 29,597.24 | 132,658.11 | 1.03 | 14 | 193,654 | 48 | 29/8/11 | 3.63 | Optimal | 184.70 | 0.0100 |
| Sol11 | 174 | 600 | 2.03 | 4.06 | 28,992.00 | 30,192.00 | 29,598.63 | 173,677.46 | 1.22 | 14 | 190,051 | 50 | 33/10/7 | 3.48 | Solution | 303.18 | 6.4295 |
| Sol12 | 174 | 650 | 2.20 | 4.39 | 28,942.00 | 30,242.00 | 29,598.71 | 175,911.50 | 1.17 | 13 | 210,337 | 45 | 14/23/8 | 3.87 | Optimal | 16.16 | 0.0100 |
| Sol13 | 174 | 700 | 2.37 | 4.73 | 28,892.00 | 30,292.00 | 29,600.15 | 218,280.01 | 1.32 | 13 | 164,037 | 51 | 33/15/3 | 3.41 | Optimal | 59.06 | 0.0100 |
| Sol14 | 174 | 750 | 2.53 | 5.07 | 28,842.00 | 30,342.00 | 29,600.96 | 242,129.17 | 1.37 | 13 | 161,487 | 45 | 16/19/10 | 3.87 | Optimal | 12.96 | 0.0026 |
| Sol15 | 174 | 800 | 2.70 | 5.41 | 28,792.00 | 30,392.00 | 29,601.43 | 256,027.71 | 1.34 | 13 | 158,937 | 46 | 23/10/13 | 3.78 | Optimal | 49.46 | 0.0100 |
| Sol16 | 174 | 850 | 2.87 | 5.74 | 28,742.00 | 30,442.00 | 29,602.95 | 300,612.44 | 1.48 | 13 | 156,387 | 51 | 36/9/6 | 3.41 | Optimal | 38.97 | 0.0093 |
| Sol17 | 174 | 900 | 3.04 | 6.08 | 28,692.00 | 30,492.00 | 29,604.13 | 335,251.49 | 1.55 | 13 | 153,837 | 51 | 36/9/6 | 3.41 | Optimal | 95.40 | 0.0098 |
| Sol18 | 174 | 950 | 3.21 | 6.42 | 28,642.00 | 30,542.00 | 29,607.53 | 436,781.56 | 1.86 | 13 | 150,711 | 51 | 36/9/6 | 3.41 | Optimal | 125.52 | 0.0100 |
| Sol19 | 174 | 1,000 | 3.38 | 6.76 | 28,592.00 | 30,592.00 | 29,608.72 | 470,879.87 | 1.92 | 13 | 147,811 | 51 | 36/9/6 | 3.41 | Optimal | 31.93 | 0.0099 |
| Sol20 | 174 | 1,050 | 3.55 | 7.10 | 28,542.00 | 30,642.00 | 29,607.60 | 437,006.96 | 1.79 | 12 | 172,213 | 48 | 28/10/10 | 3.63 | Optimal | 2.06 | 0.0000 |
| Sol21 | 174 | 1,100 | 3.72 | 7.43 | 28,492.00 | 30,692.00 | 29,609.15 | 483,262.17 | 1.88 | 12 | 170,051 | 51 | 35/11/5 | 3.41 | Optimal | 2.96 | 0.0000 |
| Sol22 | 174 | 1,150 | 3.89 | 7.77 | 28,442.00 | 30,742.00 | 29,611.33 | 546,460.82 | 2.06 | 12 | 168,051 | 51 | 35/11/5 | 3.41 | Optimal | 3.77 | 0.0053 |
| Sol23 | 174 | 1,200 | 4.06 | 8.11 | 28,392.00 | 30,792.00 | 29,611.87 | 562,481.13 | 2.04 | 12 | 166,051 | 50 | 34/8/8 | 3.48 | Optimal | 4.06 | 0.0094 |
| Sol24 | 174 | 1,250 | 4.22 | 8.45 | 28,342.00 | 30,842.00 | 29,619.93 | 805,409.62 | 2.75 | 12 | 164,051 | 51 | 36/9/6 | 3.41 | Optimal | 3.06 | 0.0037 |
| Sol25 | 174 | 1,300 | 4.39 | 8.79 | 28,292.00 | 30,892.00 | 29,633.64 | 1,211,541.06 | 3.59 | 12 | 129,044 | 50 | 33/10/7 | 3.48 | Optimal | 26.85 | 0.0047 |
| Sol26 | 174 | 1,350 | 4.56 | 9.12 | 28,242.00 | 30,942.00 | 29,635.30 | 1,260,320.32 | 3.66 | 12 | 127,044 | 48 | 23/20/5 | 3.63 | Optimal | 11.87 | 0.0094 |
| Sol27 | 174 | 1,400 | 4.73 | 9.46 | 28,192.00 | 30,992.00 | 29,621.50 | 858,591.03 | 2.71 | 11 | 156,052 | 52 | 39/8/5 | 3.35 | Optimal | 1.49 | 0.0000 |
| Sol28 | 174 | 1,450 | 4.90 | 9.80 | 28,142.00 | 31,042.00 | 29,623.54 | 919,277.74 | 2.83 | 11 | 154,352 | 45 | 18/15/12 | 3.87 | Optimal | 3.28 | 0.0006 |
| Sol29 | 174 | 1,500 | 5.07 | 10.14 | 28,092.00 | 31,092.00 | 29,637.30 | 1,325,062.12 | 3.70 | 11 | 152,652 | 53 | 41/9/3 | 3.28 | Optimal | 1.06 | 0.0000 |
| Sol30 | 174 | 1,550 | 5.24 | 10.48 | 28,042.00 | 31,142.00 | 29,626.74 | 1,013,773.08 | 2.93 | 11 | 150,952 | 46 | 18/20/8 | 3.78 | Optimal | 1.79 | 0.0000 |
| Sol31 | 174 | 1,600 | 5.41 | 10.81 | 27,992.00 | 31,192.00 | 29,627.58 | 1,041,758.43 | 2.94 | 10 | 153,027 | 43 | 16/9/18 | 4.05 | Optimal | 0.79 | 0.0049 |
| Sol32 | 174 | 1,650 | 5.58 | 11.15 | 27,942.00 | 31,242.00 | 29,629.00 | 1,083,530.76 | 2.98 | 10 | 151,427 | 44 | 15/16/13 | 3.95 | Optimal | 1.06 | 0.0025 |
| Sol33 | 174 | 1,700 | 5.74 | 11.49 | 27,892.00 | 31,292.00 | 29,630.22 | 1,119,730.68 | 3.02 | 9 | 150,019 | 45 | 19/13/13 | 3.87 | Optimal | 0.69 | 0.0000 |
| Sol34 | 174 | 1,750 | 5.91 | 11.83 | 27,842.00 | 31,342.00 | 29,640.31 | 1,400,727.80 | 3.52 | 9 | 147,423 | 51 | 33/15/3 | 3.41 | Optimal | 1.06 | 0.0056 |
| Sol35 | 174 | 1,800 | 6.08 | 12.17 | 27,792.00 | 31,392.00 | 29,644.21 | 1,507,658.59 | 3.37 | 9 | 145,762 | 52 | 39/8/5 | 3.35 | Optimal | 1.27 | 0.0051 |
| Sol36 | 174 | 1,850 | 6.25 | 12.50 | 27,742.00 | 31,442.00 | 29,646.93 | 1,585,379.40 | 3.48 | 9 | 144,612 | 52 | 38/10/4 | 3.35 | Optimal | 2.01 | 0.0000 |
| Sol37 | 174 | 1,900 | 6.42 | 12.84 | 27,692.00 | 31,492.00 | 29,653.84 | 1,776,785.85 | 4.11 | 8 | 144,047 | 52 | 37/12/3 | 3.35 | Optimal | 1.02 | -0.0000 |
| Sol38 | 174 | 1,950 | 6.59 | 13.18 | 27,642.00 | 31,542.00 | 29,659.55 | 1,942,692.02 | 4.33 | 8 | 138,572 | 53 | 41/9/3 | 3.28 | Optimal | 1.51 | 0.0000 |
| Sol39 | 174 | 2,000 | 6.76 | 13.52 | 27,592.00 | 31,592.00 | 29,659.42 | 1,930,694.01 | 4.29 | 7 | 171,249 | 44 | 21/4/19 | 3.95 | Optimal | 0.49 | 0.0089 |
| Sol40 | 174 | 2,050 | 6.93 | 13.86 | 27,542.00 | 31,642.00 | 29,659.18 | 1,925,118.37 | 4.25 | 7 | 170,599 | 44 | 20/6/18 | 3.95 | Optimal | 0.44 | 0.0000 |
| Sol41 | 174 | 2,100 | 7.10 | 14.19 | 27,492.00 | 31,692.00 | 29,661.88 | 1,999,020.98 | 4.33 | 7 | 169,949 | 51 | 37/7/7 | 3.41 | Optimal | 1.46 | 0.0000 |
| Sol42 | 174 | 2,150 | 7.27 | 14.53 | 27,442.00 | 31,742.00 | 29,703.84 | 3,284,901.03 | 5.81 | 7 | 169,299 | 46 | 26/4/16 | 3.78 | Optimal | 1.10 | 0.0047 |
| Sol43 | 174 | 2,200 | 7.43 | 14.87 | 27,392.00 | 31,792.00 | 29,666.40 | 2,146,349.23 | 4.48 | 7 | 168,649 | 51 | 38/5/8 | 3.41 | Optimal | 0.76 | 0.0049 |
| Sol44 | 174 | 2,250 | 7.60 | 15.21 | 27,342.00 | 31,842.00 | 29,656.56 | 1,868,913.15 | 3.94 | 7 | 167,866 | 45 | 13/25/7 | 3.87 | Optimal | 0.88 | 0.0000 |
| Sol45 | 174 | 2,300 | 7.77 | 15.54 | 27,292.00 | 31,892.00 | 29,672.03 | 2,293,168.82 | 4.58 | 6 | 142,808 | 46 | 25/6/15 | 3.78 | Optimal | 0.85 | 0.0060 |
| Sol46 | 174 | 2,350 | 7.94 | 15.88 | 27,242.00 | 31,942.00 | 29,663.90 | 2,067,264.31 | 4.19 | 6 | 142,219 | 46 | 26/4/16 | 3.78 | Optimal | 0.46 | 0.0088 |

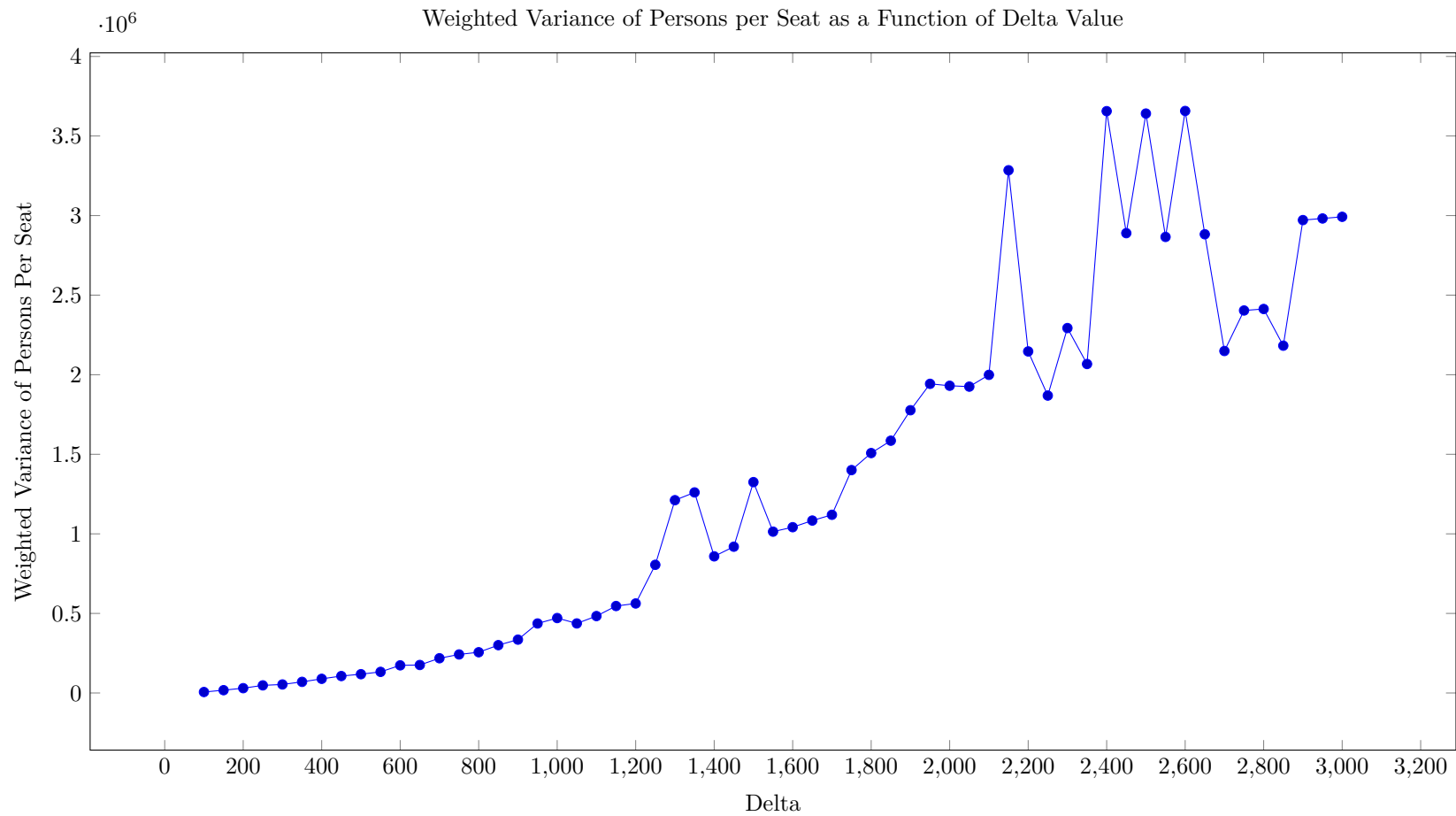
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|------------------|------------------|-----------|-----------|---------------------|----------------------|-----------------------------------|-------------|-------------|--------------|---------|------------------------|--------------------|-------------|----------------|
| Sol47 | 174 | 2,400 | 8.11 | 16.20 | 27,192.00 | 31,984.50 | 29,716.98 | 3,656,166.69 | 6.20 | 5 | 93,790 | 49 | 33/5/11 | 3.55 | Optimal | 0.54 | 0.0070 |
| Sol48 | 174 | 2,450 | 8.28 | 16.36 | 27,142.00 | 31,984.50 | 29,692.19 | 2,889,530.54 | 5.45 | 5 | 93,190 | 53 | 43/5/5 | 3.28 | Optimal | 0.44 | 0.0000 |
| Sol49 | 174 | 2,500 | 8.45 | 16.83 | 27,092.00 | 32,073.67 | 29,716.23 | 3,641,141.72 | 6.12 | 4 | 140,693 | 47 | 28/5/14 | 3.70 | Optimal | 0.27 | 0.0000 |
| Sol50 | 174 | 2,550 | 8.62 | 17.00 | 27,042.00 | 32,073.67 | 29,691.13 | 2,865,838.34 | 5.37 | 4 | 140,393 | 52 | 41/4/7 | 3.35 | Optimal | 0.26 | 0.0068 |
| Sol51 | 174 | 2,600 | 8.79 | 17.17 | 26,992.00 | 32,073.67 | 29,716.84 | 3,657,310.49 | 6.13 | 4 | 140,093 | 53 | 43/5/5 | 3.28 | Optimal | 0.30 | 0.0000 |
| Sol52 | 174 | 2,650 | 8.96 | 17.34 | 26,942.00 | 32,073.67 | 29,691.76 | 2,882,586.49 | 5.38 | 4 | 139,793 | 52 | 41/4/7 | 3.35 | Optimal | 0.23 | 0.0000 |
| Sol53 | 174 | 2,700 | 9.12 | 17.51 | 26,892.00 | 32,073.67 | 29,666.84 | 2,148,974.61 | 4.23 | 4 | 139,493 | 48 | 24/18/6 | 3.63 | Optimal | 0.31 | 0.0000 |
| Sol54 | 174 | 2,750 | 9.29 | 17.68 | 26,842.00 | 32,073.67 | 29,675.99 | 2,403,638.09 | 4.64 | 4 | 139,193 | 47 | 28/5/14 | 3.70 | Optimal | 0.25 | 0.0000 |
| Sol55 | 174 | 2,800 | 9.46 | 17.85 | 26,792.00 | 32,073.67 | 29,676.34 | 2,412,982.03 | 4.65 | 4 | 138,893 | 47 | 28/5/14 | 3.70 | Optimal | 0.30 | 0.0000 |
| Sol56 | 174 | 2,850 | 9.63 | 18.02 | 26,742.00 | 32,073.67 | 29,667.31 | 2,182,475.73 | 4.19 | 4 | 138,654 | 45 | 21/9/15 | 3.87 | Optimal | 0.33 | 0.0015 |
| Sol57 | 174 | 2,900 | 9.80 | 19.47 | 26,692.00 | 32,453.11 | 29,692.34 | 2,971,656.19 | 4.86 | 4 | 138,293 | 46 | 26/4/16 | 3.78 | Optimal | 0.39 | 0.0000 |
| Sol58 | 174 | 2,950 | 9.97 | 19.64 | 26,642.00 | 32,453.11 | 29,692.73 | 2,981,808.66 | 4.86 | 4 | 138,054 | 46 | 26/4/16 | 3.78 | Optimal | 0.37 | 0.0015 |
| Sol59 | 174 | 3,000 | 10.14 | 19.81 | 26,592.00 | 32,453.11 | 29,693.13 | 2,992,233.81 | 4.87 | 4 | 137,693 | 46 | 26/4/16 | 3.78 | Optimal | 0.39 | 0.0067 |

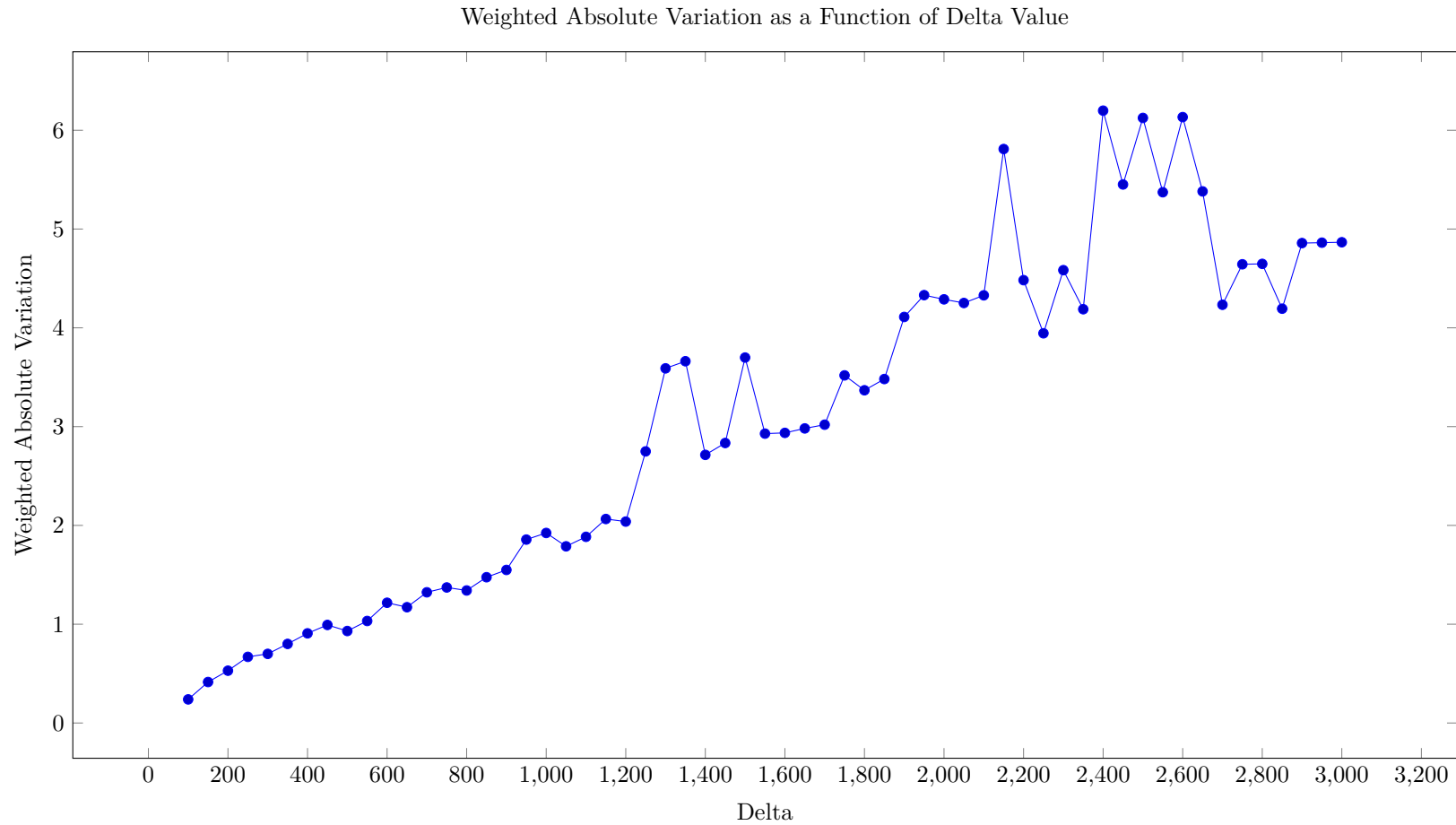












3 Details of Selected Solutions

3.1 Solution Sol1

Table 2: Solution 1

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol1 | 174 | 100 | 0.34 | 0.68 | 29,492.00 | 29,692.00 | 29,592.96 | 6,078.03 | 0.24 | 19 | 205,964 | 44 | 16/14/14 | 3.95 | Solution | 303.88 | 31.9836 |

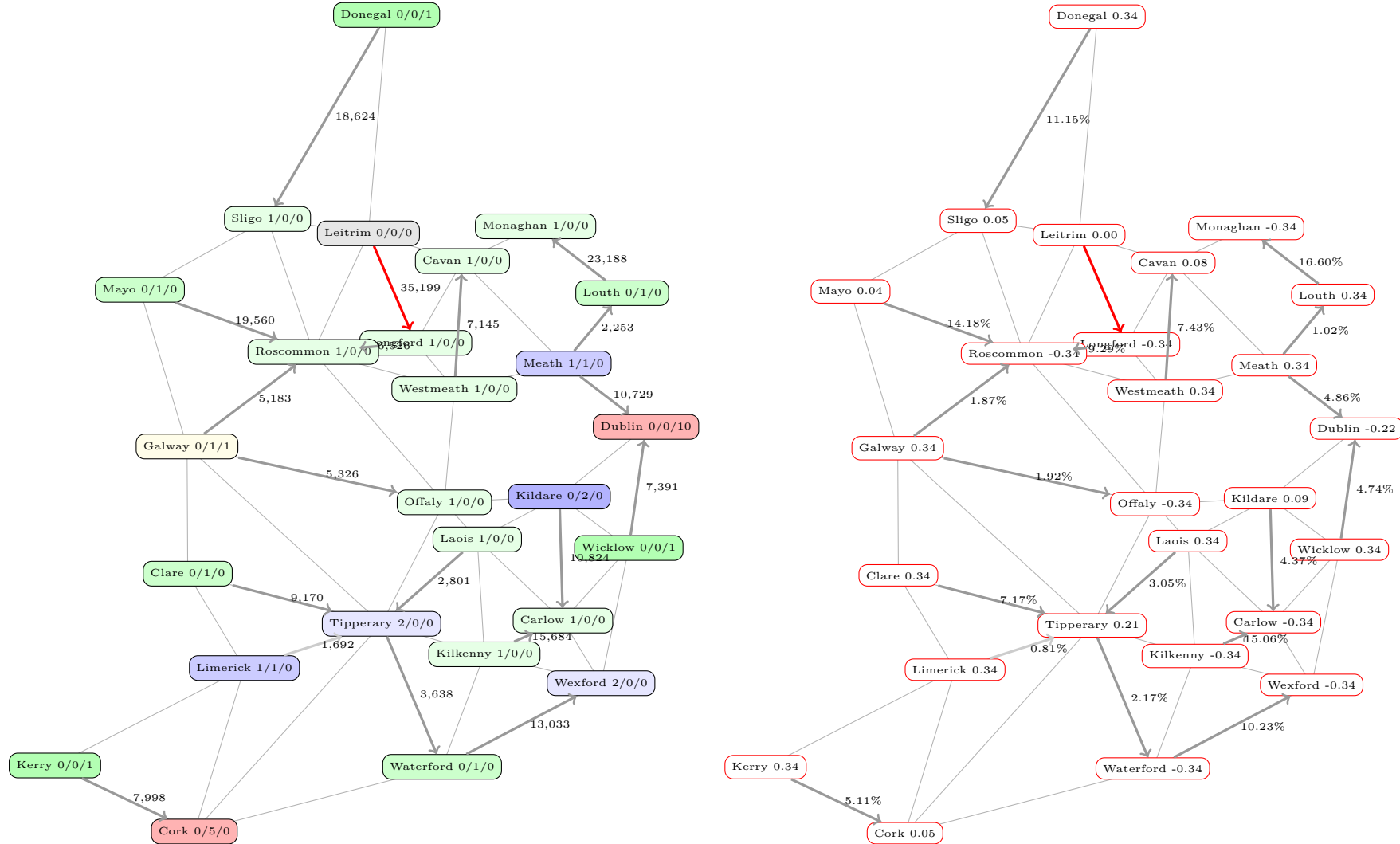
Table 3: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 26,508 | 88,476 | 1 | 1/0/0 | 3 | 29,492.00 | -0.34 |
| Cavan | 81,704 | 2.76 | 0 | 7,145 | 88,849 | 1 | 1/0/0 | 3 | 29,616.33 | 0.08 |
| Clare | 127,938 | 4.32 | 9,170 | 0 | 118,768 | 1 | 0/1/0 | 4 | 29,692.00 | 0.34 |
| Cork | 584,156 | 19.74 | 0 | 7,998 | 592,154 | 5 | 0/5/0 | 20 | 29,607.70 | 0.05 |
| Donegal | 167,084 | 5.65 | 18,624 | 0 | 148,460 | 1 | 0/0/1 | 5 | 29,692.00 | 0.34 |
| Dublin | 1,458,154 | 49.28 | 0 | 18,120 | 1,476,274 | 10 | 0/0/10 | 50 | 29,525.48 | -0.22 |
| Galway | 277,737 | 9.39 | 10,509 | 0 | 267,228 | 2 | 0/1/1 | 9 | 29,692.00 | 0.34 |
| Kerry | 156,458 | 5.29 | 7,998 | 0 | 148,460 | 1 | 0/0/1 | 5 | 29,692.00 | 0.34 |
| Kildare | 247,774 | 8.37 | 10,824 | 0 | 236,950 | 2 | 0/2/0 | 8 | 29,618.75 | 0.09 |
| Kilkenny | 104,160 | 3.52 | 15,684 | 0 | 88,476 | 1 | 1/0/0 | 3 | 29,492.00 | -0.34 |
| Laois | 91,877 | 3.10 | 2,801 | 0 | 89,076 | 1 | 1/0/0 | 3 | 29,692.00 | 0.34 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 1,692 | 0 | 207,844 | 2 | 1/1/0 | 7 | 29,692.00 | 0.34 |
| Longford | 46,751 | 1.58 | 0 | 41,725 | 88,476 | 1 | 1/0/0 | 3 | 29,492.00 | -0.34 |
| Louth | 139,703 | 4.72 | 23,188 | 2,253 | 118,768 | 1 | 0/1/0 | 4 | 29,692.00 | 0.34 |
| Mayo | 137,970 | 4.66 | 19,560 | 0 | 118,410 | 1 | 0/1/0 | 4 | 29,602.50 | 0.04 |
| Meath | 220,826 | 7.46 | 12,982 | 0 | 207,844 | 2 | 1/1/0 | 7 | 29,692.00 | 0.34 |
| Monaghan | 65,288 | 2.21 | 0 | 23,188 | 88,476 | 1 | 1/0/0 | 3 | 29,492.00 | -0.34 |
| Offaly | 83,150 | 2.81 | 0 | 5,326 | 88,476 | 1 | 1/0/0 | 3 | 29,492.00 | -0.34 |
| Roscommon | 70,259 | 2.37 | 6,526 | 24,743 | 88,476 | 1 | 1/0/0 | 3 | 29,492.00 | -0.34 |
| Sligo | 70,198 | 2.37 | 0 | 18,624 | 88,822 | 1 | 1/0/0 | 3 | 29,607.33 | 0.05 |
| Tipperary | 167,895 | 5.67 | 3,638 | 13,663 | 177,920 | 2 | 2/0/0 | 6 | 29,653.33 | 0.21 |
| Waterford | 127,363 | 4.30 | 13,033 | 3,638 | 117,968 | 1 | 0/1/0 | 4 | 29,492.00 | -0.34 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 7,145 | 0 | 89,076 | 1 | 1/0/0 | 3 | 29,692.00 | 0.34 |
| Wexford | 163,919 | 5.54 | 0 | 13,033 | 176,952 | 2 | 2/0/0 | 6 | 29,492.00 | -0.34 |
| Wicklow | 155,851 | 5.27 | 7,391 | 0 | 148,460 | 1 | 0/0/1 | 5 | 29,692.00 | 0.34 |

Table 4: 19 Transfers (Total 205964)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 10,824 | 4.37 |
| Kilkenny | Carlow | 15,684 | 15.06 |
| Laois | Tipperary | 2,801 | 3.05 |
| Louth | Monaghan | 23,188 | 16.60 |
| Meath | Dublin | 10,729 | 4.86 |
| Meath | Louth | 2,253 | 1.02 |
| Westmeath | Cavan | 7,145 | 7.43 |
| Wicklow | Dublin | 7,391 | 4.74 |
| Clare | Tipperary | 9,170 | 7.17 |
| Kerry | Cork | 7,998 | 5.11 |
| Limerick | Tipperary | 1,692 | 0.81 |
| Tipperary | Waterford | 3,638 | 2.17 |
| Waterford | Wexford | 13,033 | 10.23 |
| Galway | Offaly | 5,326 | 1.92 |
| Galway | Roscommon | 5,183 | 1.87 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 19,560 | 14.18 |
| Roscommon | Longford | 6,526 | 9.29 |
| Donegal | Sligo | 18,624 | 11.15 |

Figure 2: Sol1 (174 seats, 44 constituencies, 19 transfers, 29,592.96 persons per TD, Δ_{max} 100 (0.34% of 29,592), weighted variation 0.24%)

3.2 Solution Sol2

Table 5: Solution 2

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol2 | 174 | 150 | 0.51 | 1.01 | 29,442.00 | 29,742.00 | 29,593.35 | 17,571.41 | 0.41 | 18 | 279,872 | 44 | 18/10/16 | 3.95 | Solution | 302.91 | 22.1502 |

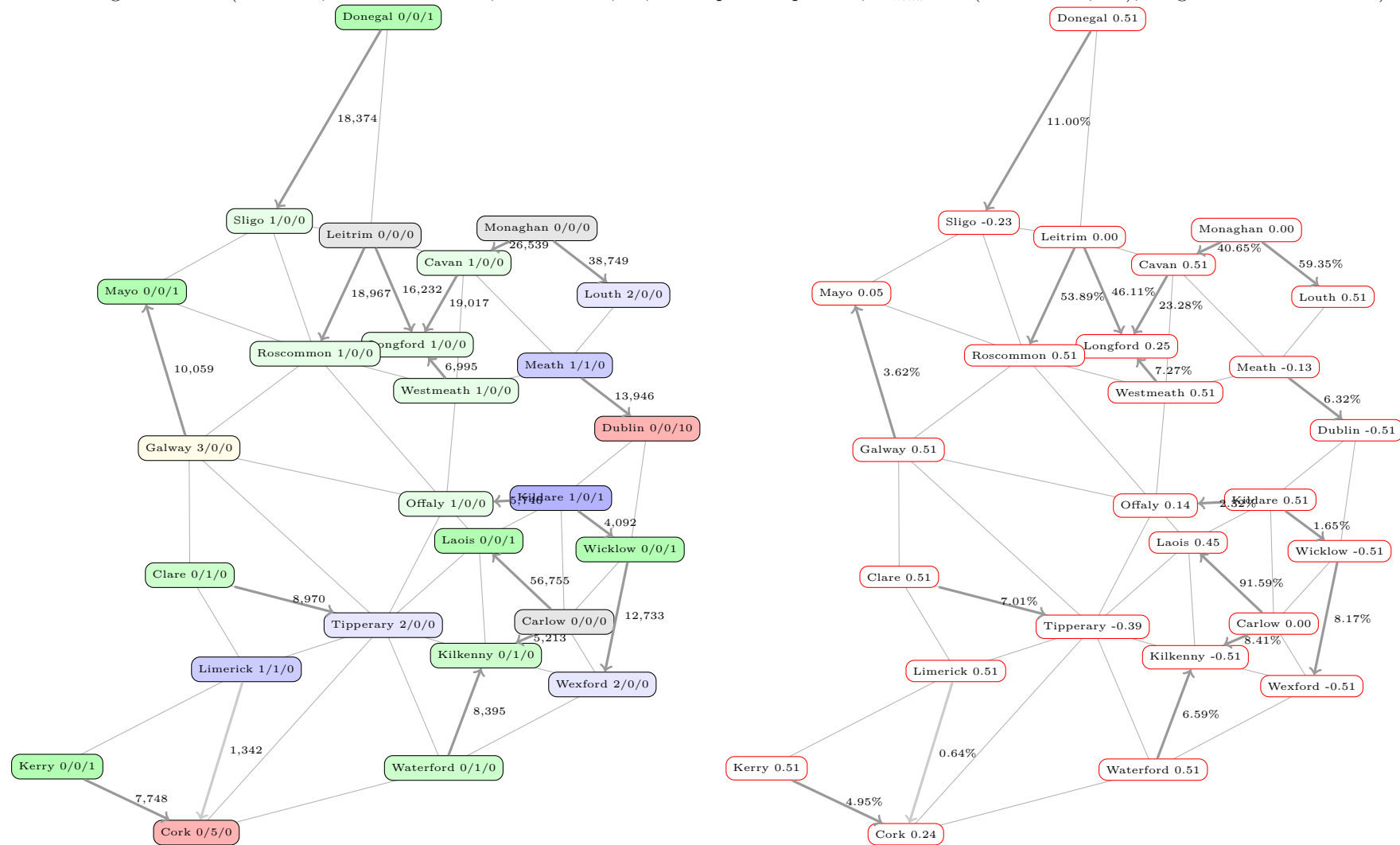
Table 6: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 61,968 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Cavan | 81,704 | 2.76 | 19,017 | 26,539 | 89,226 | 1 | 1/0/0 | 3 | 29,742.00 | 0.51 |
| Clare | 127,938 | 4.32 | 8,970 | 0 | 118,968 | 1 | 0/1/0 | 4 | 29,742.00 | 0.51 |
| Cork | 584,156 | 19.74 | 0 | 9,090 | 593,246 | 5 | 0/5/0 | 20 | 29,662.30 | 0.24 |
| Donegal | 167,084 | 5.65 | 18,374 | 0 | 148,710 | 1 | 0/0/1 | 5 | 29,742.00 | 0.51 |
| Dublin | 1,458,154 | 49.28 | 0 | 13,946 | 1,472,100 | 10 | 0/0/10 | 50 | 29,442.00 | -0.51 |
| Galway | 277,737 | 9.39 | 10,059 | 0 | 267,678 | 3 | 3/0/0 | 9 | 29,742.00 | 0.51 |
| Kerry | 156,458 | 5.29 | 7,748 | 0 | 148,710 | 1 | 0/0/1 | 5 | 29,742.00 | 0.51 |
| Kildare | 247,774 | 8.37 | 9,838 | 0 | 237,936 | 2 | 1/0/1 | 8 | 29,742.00 | 0.51 |
| Kilkenny | 104,160 | 3.52 | 0 | 13,608 | 117,768 | 1 | 0/1/0 | 4 | 29,442.00 | -0.51 |
| Laois | 91,877 | 3.10 | 0 | 56,755 | 148,632 | 1 | 0/0/1 | 5 | 29,726.40 | 0.45 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 1,342 | 0 | 208,194 | 2 | 1/1/0 | 7 | 29,742.00 | 0.51 |
| Longford | 46,751 | 1.58 | 0 | 42,244 | 88,995 | 1 | 1/0/0 | 3 | 29,665.00 | 0.25 |
| Louth | 139,703 | 4.72 | 0 | 38,749 | 178,452 | 2 | 2/0/0 | 6 | 29,742.00 | 0.51 |
| Mayo | 137,970 | 4.66 | 0 | 10,059 | 148,029 | 1 | 0/0/1 | 5 | 29,605.80 | 0.05 |
| Meath | 220,826 | 7.46 | 13,946 | 0 | 206,880 | 2 | 1/1/0 | 7 | 29,554.29 | -0.13 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 5,746 | 88,896 | 1 | 1/0/0 | 3 | 29,632.00 | 0.14 |
| Roscommon | 70,259 | 2.37 | 0 | 18,967 | 89,226 | 1 | 1/0/0 | 3 | 29,742.00 | 0.51 |
| Sligo | 70,198 | 2.37 | 0 | 18,374 | 88,572 | 1 | 1/0/0 | 3 | 29,524.00 | -0.23 |
| Tipperary | 167,895 | 5.67 | 0 | 8,970 | 176,865 | 2 | 2/0/0 | 6 | 29,477.50 | -0.39 |
| Waterford | 127,363 | 4.30 | 8,395 | 0 | 118,968 | 1 | 0/1/0 | 4 | 29,742.00 | 0.51 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 6,995 | 0 | 89,226 | 1 | 1/0/0 | 3 | 29,742.00 | 0.51 |
| Wexford | 163,919 | 5.54 | 0 | 12,733 | 176,652 | 2 | 2/0/0 | 6 | 29,442.00 | -0.51 |
| Wicklow | 155,851 | 5.27 | 12,733 | 4,092 | 147,210 | 1 | 0/0/1 | 5 | 29,442.00 | -0.51 |

Table 7: 18 Transfers (Total 279872)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Carlow | Kilkenny | 5,213 | 8.41 |
| Carlow | Laois | 56,755 | 91.59 |
| Kildare | Offaly | 5,746 | 2.32 |
| Kildare | Wicklow | 4,092 | 1.65 |
| Meath | Dublin | 13,946 | 6.32 |
| Westmeath | Longford | 6,995 | 7.27 |
| Wicklow | Wexford | 12,733 | 8.17 |
| Clare | Tipperary | 8,970 | 7.01 |
| Kerry | Cork | 7,748 | 4.95 |
| Limerick | Cork | 1,342 | 0.64 |
| Waterford | Kilkenny | 8,395 | 6.59 |
| Galway | Mayo | 10,059 | 3.62 |
| Leitrim | Longford | 16,232 | 46.11 |
| Leitrim | Roscommon | 18,967 | 53.89 |
| Cavan | Longford | 19,017 | 23.28 |
| Donegal | Sligo | 18,374 | 11.00 |
| Monaghan | Louth | 38,749 | 59.35 |
| Monaghan | Cavan | 26,539 | 40.65 |

Figure 3: Sol2 (174 seats, 44 constituencies, 18 transfers, 29,593.35 persons per TD, Δ_{max} 150 (0.51% of 29,592), weighted variation 0.41%)

3.3 Solution Sol3

Table 8: Solution 3

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol3 | 174 | 200 | 0.68 | 1.35 | 29,392.00 | 29,792.00 | 29,593.77 | 30,224.74 | 0.53 | 18 | 214,016 | 45 | 15/21/9 | 3.87 | Solution | 304.28 | 27.4703 |

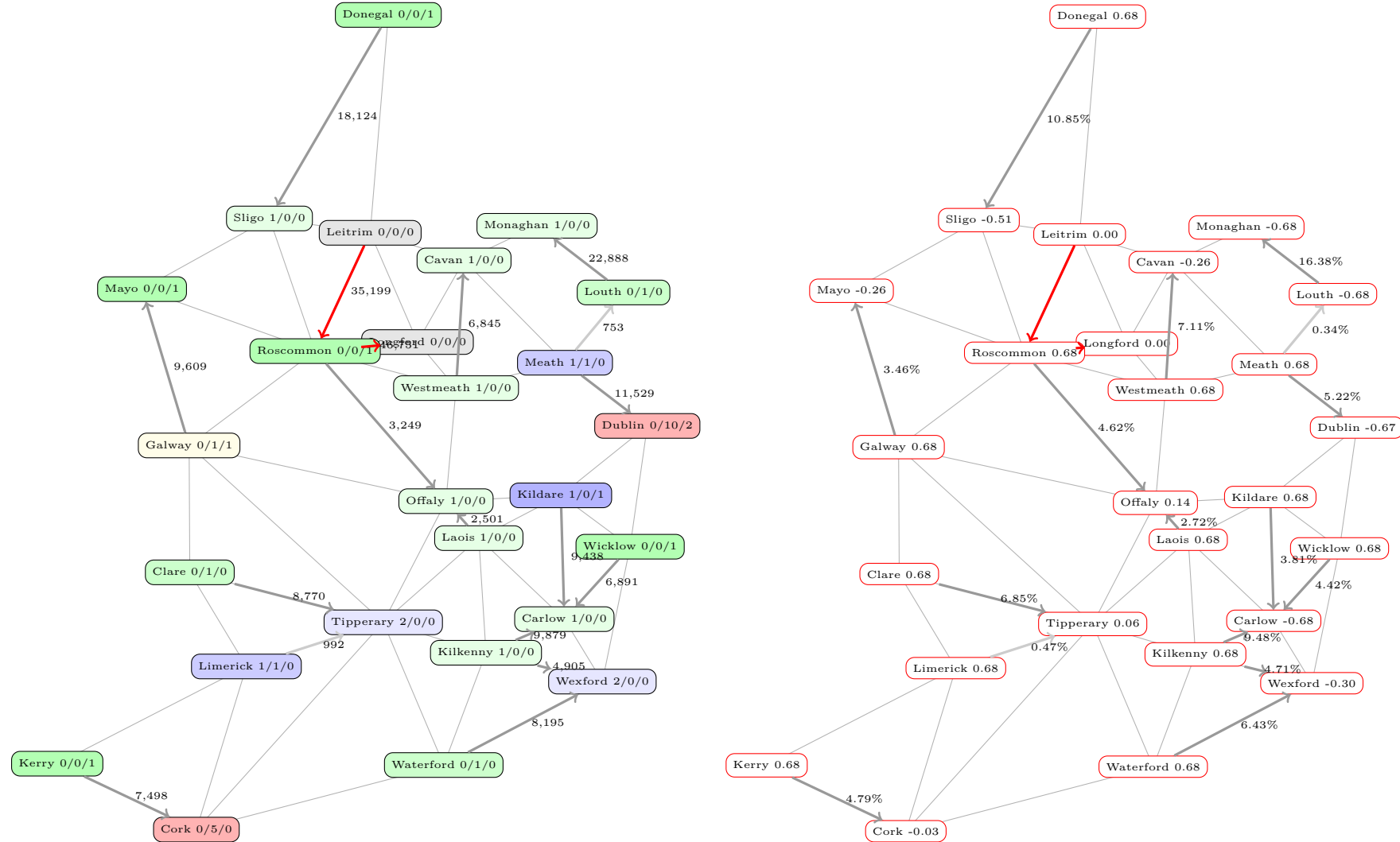
Table 9: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 26,208 | 88,176 | 1 | 1/0/0 | 3 | 29,392.00 | -0.68 |
| Cavan | 81,704 | 2.76 | 0 | 6,845 | 88,549 | 1 | 1/0/0 | 3 | 29,516.33 | -0.26 |
| Clare | 127,938 | 4.32 | 8,770 | 0 | 119,168 | 1 | 0/1/0 | 4 | 29,792.00 | 0.68 |
| Cork | 584,156 | 19.74 | 0 | 7,498 | 591,654 | 5 | 0/5/0 | 20 | 29,582.70 | -0.03 |
| Donegal | 167,084 | 5.65 | 18,124 | 0 | 148,960 | 1 | 0/0/1 | 5 | 29,792.00 | 0.68 |
| Dublin | 1,458,154 | 49.28 | 0 | 11,529 | 1,469,683 | 12 | 0/10/2 | 50 | 29,393.66 | -0.67 |
| Galway | 277,737 | 9.39 | 9,609 | 0 | 268,128 | 2 | 0/1/1 | 9 | 29,792.00 | 0.68 |
| Kerry | 156,458 | 5.29 | 7,498 | 0 | 148,960 | 1 | 0/0/1 | 5 | 29,792.00 | 0.68 |
| Kildare | 247,774 | 8.37 | 9,438 | 0 | 238,336 | 2 | 1/0/1 | 8 | 29,792.00 | 0.68 |
| Kilkenny | 104,160 | 3.52 | 14,784 | 0 | 89,376 | 1 | 1/0/0 | 3 | 29,792.00 | 0.68 |
| Laois | 91,877 | 3.10 | 2,501 | 0 | 89,376 | 1 | 1/0/0 | 3 | 29,792.00 | 0.68 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 992 | 0 | 208,544 | 2 | 1/1/0 | 7 | 29,792.00 | 0.68 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 22,888 | 753 | 117,568 | 1 | 0/1/0 | 4 | 29,392.00 | -0.68 |
| Mayo | 137,970 | 4.66 | 0 | 9,609 | 147,579 | 1 | 0/0/1 | 5 | 29,515.80 | -0.26 |
| Meath | 220,826 | 7.46 | 12,282 | 0 | 208,544 | 2 | 1/1/0 | 7 | 29,792.00 | 0.68 |
| Monaghan | 65,288 | 2.21 | 0 | 22,888 | 88,176 | 1 | 1/0/0 | 3 | 29,392.00 | -0.68 |
| Offaly | 83,150 | 2.81 | 0 | 5,750 | 88,900 | 1 | 1/0/0 | 3 | 29,633.33 | 0.14 |
| Roscommon | 70,259 | 2.37 | 3,249 | 81,950 | 148,960 | 1 | 0/0/1 | 5 | 29,792.00 | 0.68 |
| Sligo | 70,198 | 2.37 | 0 | 18,124 | 88,322 | 1 | 1/0/0 | 3 | 29,440.67 | -0.51 |
| Tipperary | 167,895 | 5.67 | 0 | 9,762 | 177,657 | 2 | 2/0/0 | 6 | 29,609.50 | 0.06 |
| Waterford | 127,363 | 4.30 | 8,195 | 0 | 119,168 | 1 | 0/1/0 | 4 | 29,792.00 | 0.68 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 6,845 | 0 | 89,376 | 1 | 1/0/0 | 3 | 29,792.00 | 0.68 |
| Wexford | 163,919 | 5.54 | 0 | 13,100 | 177,019 | 2 | 2/0/0 | 6 | 29,503.17 | -0.30 |
| Wicklow | 155,851 | 5.27 | 6,891 | 0 | 148,960 | 1 | 0/0/1 | 5 | 29,792.00 | 0.68 |

Table 10: 18 Transfers (Total 214016)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 9,438 | 3.81 |
| Kilkenny | Carlow | 9,879 | 9.48 |
| Kilkenny | Wexford | 4,905 | 4.71 |
| Laois | Offaly | 2,501 | 2.72 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 22,888 | 16.38 |
| Meath | Dublin | 11,529 | 5.22 |
| Meath | Louth | 753 | 0.34 |
| Westmeath | Cavan | 6,845 | 7.11 |
| Wicklow | Carlow | 6,891 | 4.42 |
| Clare | Tipperary | 8,770 | 6.85 |
| Kerry | Cork | 7,498 | 4.79 |
| Limerick | Tipperary | 992 | 0.47 |
| Waterford | Wexford | 8,195 | 6.43 |
| Galway | Mayo | 9,609 | 3.46 |
| Leitrim | Roscommon | 35,199 | 100.00 |
| Roscommon | Offaly | 3,249 | 4.62 |
| Donegal | Sligo | 18,124 | 10.85 |

Figure 4: Sol3 (174 seats, 45 constituencies, 18 transfers, 29,593.77 persons per TD, Δ_{max} 200 (0.68% of 29,592), weighted variation 0.53%)

3.4 Solution Sol4

Table 11: Solution 4

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol4 | 174 | 250 | 0.84 | 1.69 | 29,342.00 | 29,842.00 | 29,594.37 | 47,839.55 | 0.67 | 17 | 241,029 | 44 | 11/24/9 | 3.95 | Solution | 303.51 | 20.1917 |

Table 12: Counties

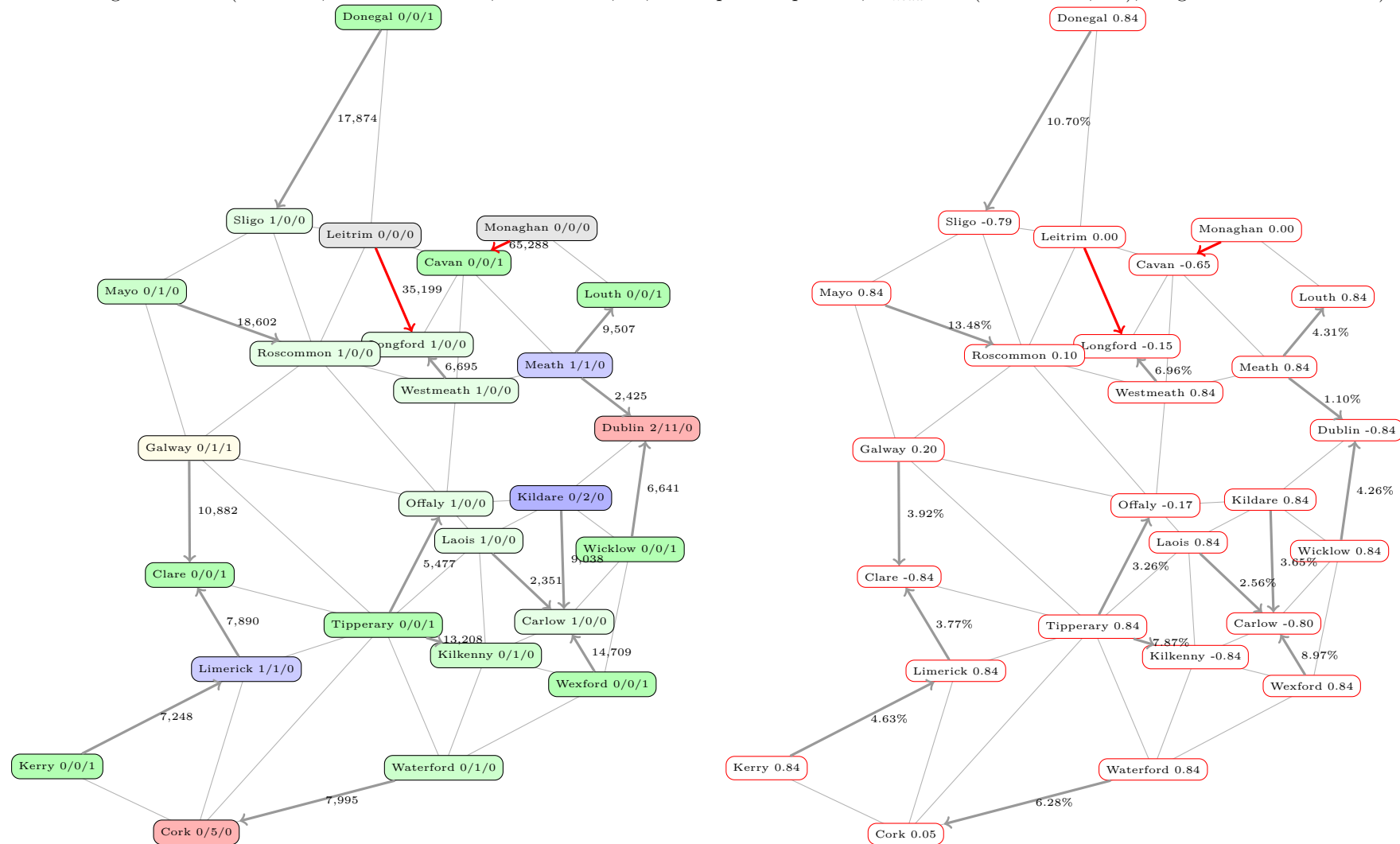
| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 26,098 | 88,066 | 1 | 1/0/0 | 3 | 29,355.33 | -0.80 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 0 | 18,772 | 146,710 | 1 | 0/0/1 | 5 | 29,342.00 | -0.84 |
| Cork | 584,156 | 19.74 | 0 | 7,995 | 592,151 | 5 | 0/5/0 | 20 | 29,607.55 | 0.05 |
| Donegal | 167,084 | 5.65 | 17,874 | 0 | 149,210 | 1 | 0/0/1 | 5 | 29,842.00 | 0.84 |
| Dublin | 1,458,154 | 49.28 | 0 | 9,066 | 1,467,220 | 13 | 2/11/0 | 50 | 29,344.40 | -0.84 |
| Galway | 277,737 | 9.39 | 10,882 | 0 | 266,855 | 2 | 0/1/1 | 9 | 29,650.56 | 0.20 |
| Kerry | 156,458 | 5.29 | 7,248 | 0 | 149,210 | 1 | 0/0/1 | 5 | 29,842.00 | 0.84 |
| Kildare | 247,774 | 8.37 | 9,038 | 0 | 238,736 | 2 | 0/2/0 | 8 | 29,842.00 | 0.84 |
| Kilkenny | 104,160 | 3.52 | 0 | 13,208 | 117,368 | 1 | 0/1/0 | 4 | 29,342.00 | -0.84 |
| Laois | 91,877 | 3.10 | 2,351 | 0 | 89,526 | 1 | 1/0/0 | 3 | 29,842.00 | 0.84 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 7,890 | 7,248 | 208,894 | 2 | 1/1/0 | 7 | 29,842.00 | 0.84 |
| Longford | 46,751 | 1.58 | 0 | 41,894 | 88,645 | 1 | 1/0/0 | 3 | 29,548.33 | -0.15 |
| Louth | 139,703 | 4.72 | 0 | 9,507 | 149,210 | 1 | 0/0/1 | 5 | 29,842.00 | 0.84 |
| Mayo | 137,970 | 4.66 | 18,602 | 0 | 119,368 | 1 | 0/1/0 | 4 | 29,842.00 | 0.84 |
| Meath | 220,826 | 7.46 | 11,932 | 0 | 208,894 | 2 | 1/1/0 | 7 | 29,842.00 | 0.84 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 5,477 | 88,627 | 1 | 1/0/0 | 3 | 29,542.33 | -0.17 |
| Roscommon | 70,259 | 2.37 | 0 | 18,602 | 88,861 | 1 | 1/0/0 | 3 | 29,620.33 | 0.10 |
| Sligo | 70,198 | 2.37 | 0 | 17,874 | 88,072 | 1 | 1/0/0 | 3 | 29,357.33 | -0.79 |
| Tipperary | 167,895 | 5.67 | 18,685 | 0 | 149,210 | 1 | 0/0/1 | 5 | 29,842.00 | 0.84 |
| Waterford | 127,363 | 4.30 | 7,995 | 0 | 119,368 | 1 | 0/1/0 | 4 | 29,842.00 | 0.84 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 6,695 | 0 | 89,526 | 1 | 1/0/0 | 3 | 29,842.00 | 0.84 |
| Wexford | 163,919 | 5.54 | 14,709 | 0 | 149,210 | 1 | 0/0/1 | 5 | 29,842.00 | 0.84 |
| Wicklow | 155,851 | 5.27 | 6,641 | 0 | 149,210 | 1 | 0/0/1 | 5 | 29,842.00 | 0.84 |

Table 13: 17 Transfers (Total 241029)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 9,038 | 3.65 |
| Laois | Carlow | 2,351 | 2.56 |
| Meath | Dublin | 2,425 | 1.10 |
| Meath | Louth | 9,507 | 4.31 |
| Westmeath | Longford | 6,695 | 6.96 |
| Wexford | Carlow | 14,709 | 8.97 |
| Wicklow | Dublin | 6,641 | 4.26 |
| Kerry | Limerick | 7,248 | 4.63 |
| Limerick | Clare | 7,890 | 3.77 |
| Tipperary | Kilkenny | 13,208 | 7.87 |
| Tipperary | Offaly | 5,477 | 3.26 |
| Waterford | Cork | 7,995 | 6.28 |
| Galway | Clare | 10,882 | 3.92 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 18,602 | 13.48 |
| Donegal | Sligo | 17,874 | 10.70 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 5: Sol4 (174 seats, 44 constituencies, 17 transfers, 29,594.37 persons per TD, Δ_{max} 250 (0.84% of 29,592), weighted variation 0.67%)



3.5 Solution Sol5

Table 14: Solution 5

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol5 | 174 | 300 | 1.01 | 2.03 | 29,292.00 | 29,892.00 | 29,594.56 | 53,514.29 | 0.70 | 16 | 232,545 | 45 | 14/23/8 | 3.87 | Solution | 302.96 | 13.4354 |

Table 15: Counties

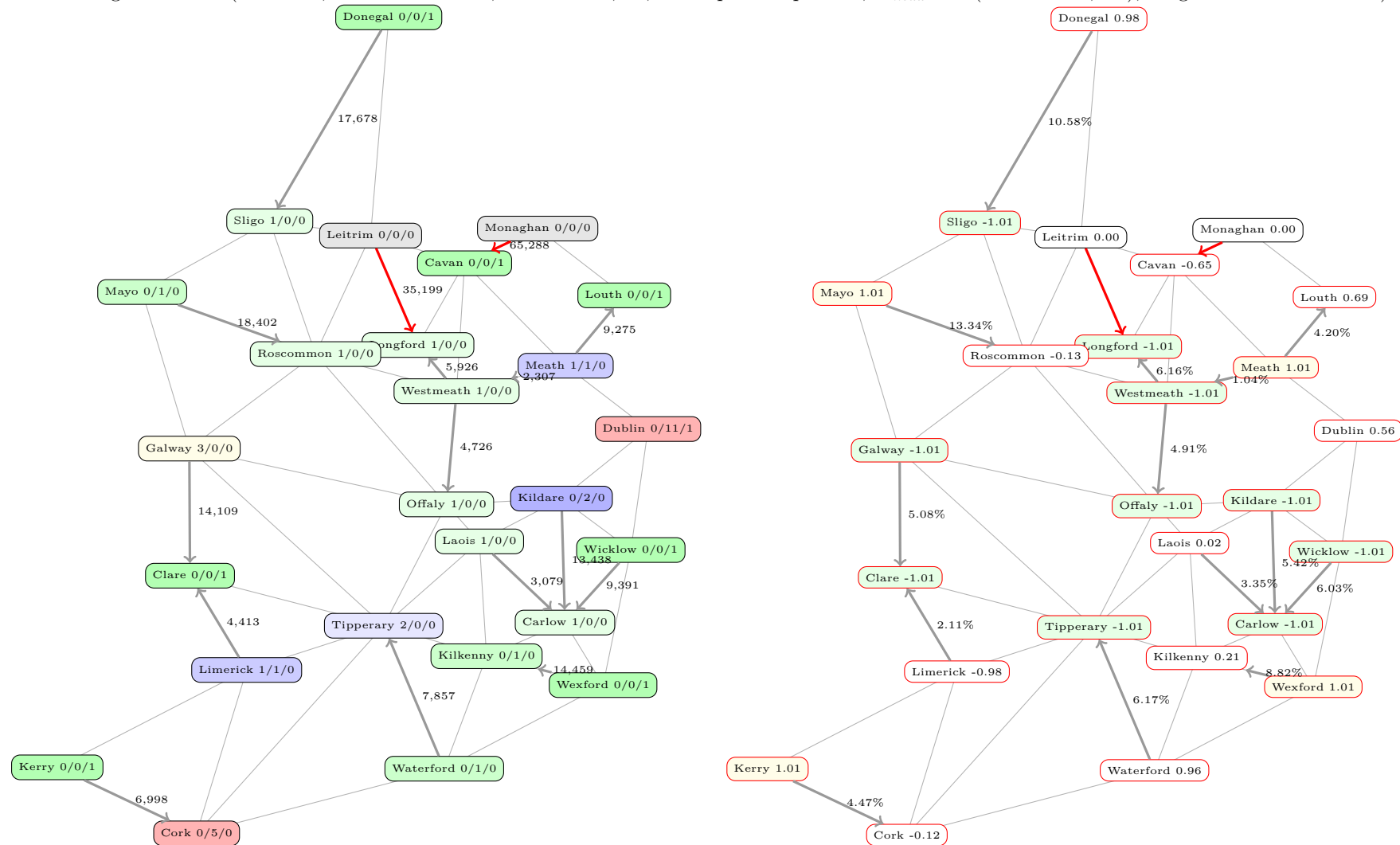
| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 25,908 | 87,876 | 1 | 1/0/0 | 3 | 29,292.00 | -1.01 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 0 | 18,522 | 146,460 | 1 | 0/0/1 | 5 | 29,292.00 | -1.01 |
| Cork | 584,156 | 19.74 | 0 | 6,998 | 591,154 | 5 | 0/5/0 | 20 | 29,557.70 | -0.12 |
| Donegal | 167,084 | 5.65 | 17,678 | 0 | 149,406 | 1 | 0/0/1 | 5 | 29,881.20 | 0.98 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 12 | 0/11/1 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 14,109 | 0 | 263,628 | 3 | 3/0/0 | 9 | 29,292.00 | -1.01 |
| Kerry | 156,458 | 5.29 | 6,998 | 0 | 149,460 | 1 | 0/0/1 | 5 | 29,892.00 | 1.01 |
| Kildare | 247,774 | 8.37 | 13,438 | 0 | 234,336 | 2 | 0/2/0 | 8 | 29,292.00 | -1.01 |
| Kilkenny | 104,160 | 3.52 | 0 | 14,459 | 118,619 | 1 | 0/1/0 | 4 | 29,654.75 | 0.21 |
| Laois | 91,877 | 3.10 | 3,079 | 0 | 88,798 | 1 | 1/0/0 | 3 | 29,599.33 | 0.02 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 4,413 | 0 | 205,123 | 2 | 1/1/0 | 7 | 29,303.29 | -0.98 |
| Longford | 46,751 | 1.58 | 0 | 41,125 | 87,876 | 1 | 1/0/0 | 3 | 29,292.00 | -1.01 |
| Louth | 139,703 | 4.72 | 0 | 9,275 | 148,978 | 1 | 0/0/1 | 5 | 29,795.60 | 0.69 |
| Mayo | 137,970 | 4.66 | 18,402 | 0 | 119,568 | 1 | 0/1/0 | 4 | 29,892.00 | 1.01 |
| Meath | 220,826 | 7.46 | 11,582 | 0 | 209,244 | 2 | 1/1/0 | 7 | 29,892.00 | 1.01 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 4,726 | 87,876 | 1 | 1/0/0 | 3 | 29,292.00 | -1.01 |
| Roscommon | 70,259 | 2.37 | 0 | 18,402 | 88,661 | 1 | 1/0/0 | 3 | 29,553.67 | -0.13 |
| Sligo | 70,198 | 2.37 | 0 | 17,678 | 87,876 | 1 | 1/0/0 | 3 | 29,292.00 | -1.01 |
| Tipperary | 167,895 | 5.67 | 0 | 7,857 | 175,752 | 2 | 2/0/0 | 6 | 29,292.00 | -1.01 |
| Waterford | 127,363 | 4.30 | 7,857 | 0 | 119,506 | 1 | 0/1/0 | 4 | 29,876.50 | 0.96 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 10,652 | 2,307 | 87,876 | 1 | 1/0/0 | 3 | 29,292.00 | -1.01 |
| Wexford | 163,919 | 5.54 | 14,459 | 0 | 149,460 | 1 | 0/0/1 | 5 | 29,892.00 | 1.01 |
| Wicklow | 155,851 | 5.27 | 9,391 | 0 | 146,460 | 1 | 0/0/1 | 5 | 29,292.00 | -1.01 |

Table 16: 16 Transfers (Total 232545)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 13,438 | 5.42 |
| Laois | Carlow | 3,079 | 3.35 |
| Meath | Louth | 9,275 | 4.20 |
| Meath | Westmeath | 2,307 | 1.04 |
| Westmeath | Longford | 5,926 | 6.16 |
| Westmeath | Offaly | 4,726 | 4.91 |
| Wexford | Kilkenny | 14,459 | 8.82 |
| Wicklow | Carlow | 9,391 | 6.03 |
| Kerry | Cork | 6,998 | 4.47 |
| Limerick | Clare | 4,413 | 2.11 |
| Waterford | Tipperary | 7,857 | 6.17 |
| Galway | Clare | 14,109 | 5.08 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 18,402 | 13.34 |
| Donegal | Sligo | 17,678 | 10.58 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 6: Sol5 (174 seats, 45 constituencies, 16 transfers, 29,594.56 persons per TD, Δ_{max} 300 (1.01% of 29,592), weighted variation 0.70%)



3.6 Solution Sol6

Table 17: Solution 6

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol6 | 174 | 350 | 1.18 | 2.37 | 29,242.00 | 29,942.00 | 29,595.12 | 69,937.67 | 0.80 | 15 | 185,497 | 45 | 17/17/11 | 3.87 | Solution | 300.09 | 5.4072 |

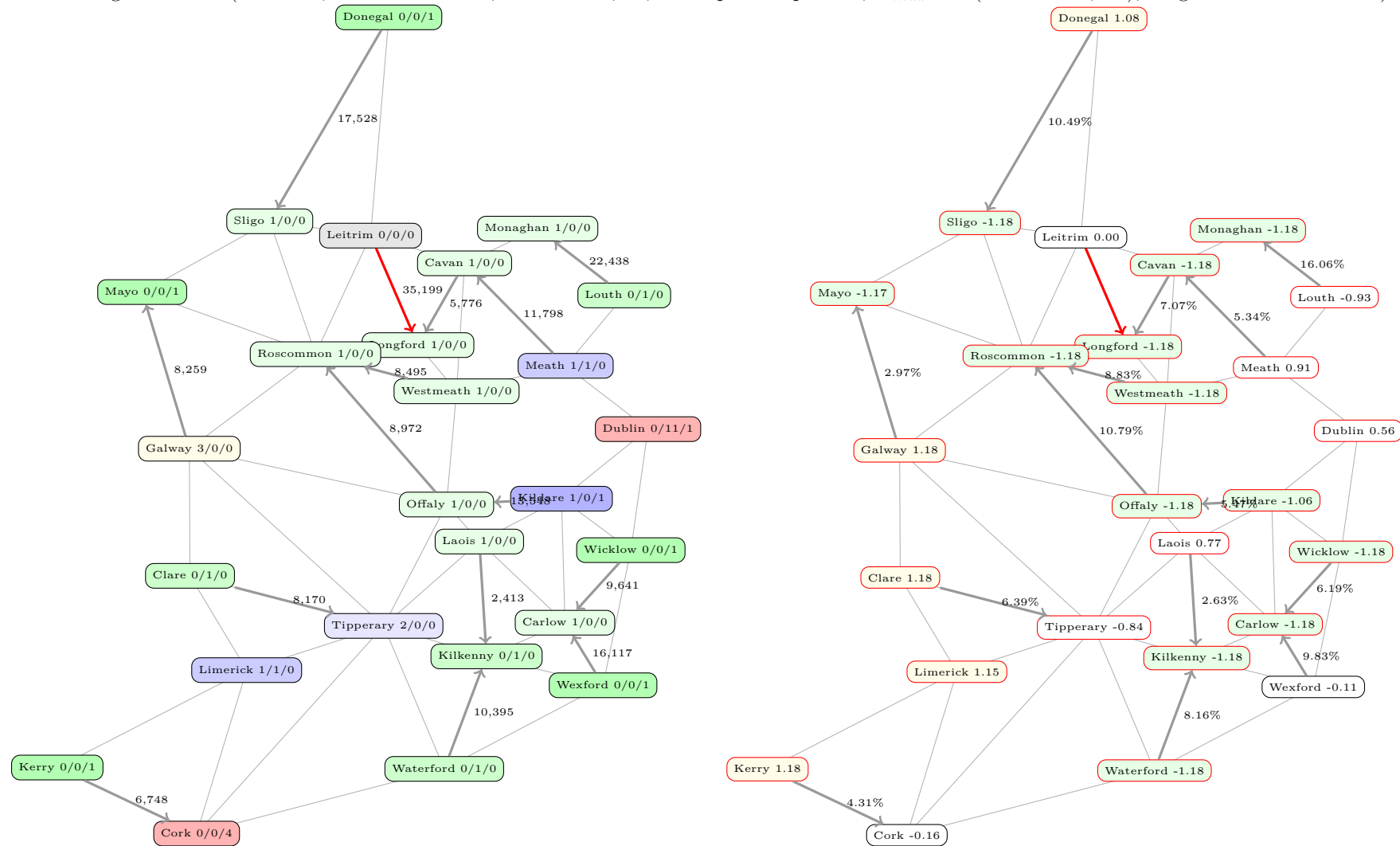
Table 18: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 25,758 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Cavan | 81,704 | 2.76 | 5,776 | 11,798 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Clare | 127,938 | 4.32 | 8,170 | 0 | 119,768 | 1 | 0/1/0 | 4 | 29,942.00 | 1.18 |
| Cork | 584,156 | 19.74 | 0 | 6,748 | 590,904 | 4 | 0/0/4 | 20 | 29,545.20 | -0.16 |
| Donegal | 167,084 | 5.65 | 17,528 | 0 | 149,556 | 1 | 0/0/1 | 5 | 29,911.20 | 1.08 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 12 | 0/11/1 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 8,259 | 0 | 269,478 | 3 | 3/0/0 | 9 | 29,942.00 | 1.18 |
| Kerry | 156,458 | 5.29 | 6,748 | 0 | 149,710 | 1 | 0/0/1 | 5 | 29,942.00 | 1.18 |
| Kildare | 247,774 | 8.37 | 13,548 | 0 | 234,226 | 2 | 1/0/1 | 8 | 29,278.25 | -1.06 |
| Kilkenny | 104,160 | 3.52 | 0 | 12,808 | 116,968 | 1 | 0/1/0 | 4 | 29,242.00 | -1.18 |
| Laois | 91,877 | 3.10 | 2,413 | 0 | 89,464 | 1 | 1/0/0 | 3 | 29,821.33 | 0.77 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 40,975 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Louth | 139,703 | 4.72 | 22,438 | 0 | 117,265 | 1 | 0/1/0 | 4 | 29,316.25 | -0.93 |
| Mayo | 137,970 | 4.66 | 0 | 8,259 | 146,229 | 1 | 0/0/1 | 5 | 29,245.80 | -1.17 |
| Meath | 220,826 | 7.46 | 11,798 | 0 | 209,028 | 2 | 1/1/0 | 7 | 29,861.14 | 0.91 |
| Monaghan | 65,288 | 2.21 | 0 | 22,438 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Offaly | 83,150 | 2.81 | 8,972 | 13,548 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Roscommon | 70,259 | 2.37 | 0 | 17,467 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Sligo | 70,198 | 2.37 | 0 | 17,528 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Tipperary | 167,895 | 5.67 | 0 | 8,170 | 176,065 | 2 | 2/0/0 | 6 | 29,344.17 | -0.84 |
| Waterford | 127,363 | 4.30 | 10,395 | 0 | 116,968 | 1 | 0/1/0 | 4 | 29,242.00 | -1.18 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 8,495 | 0 | 87,726 | 1 | 1/0/0 | 3 | 29,242.00 | -1.18 |
| Wexford | 163,919 | 5.54 | 16,117 | 0 | 147,802 | 1 | 0/0/1 | 5 | 29,560.40 | -0.11 |
| Wicklow | 155,851 | 5.27 | 9,641 | 0 | 146,210 | 1 | 0/0/1 | 5 | 29,242.00 | -1.18 |

Table 19: 15 Transfers (Total 185497)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Offaly | 13,548 | 5.47 |
| Laois | Kilkenny | 2,413 | 2.63 |
| Louth | Monaghan | 22,438 | 16.06 |
| Meath | Cavan | 11,798 | 5.34 |
| Offaly | Roscommon | 8,972 | 10.79 |
| Westmeath | Roscommon | 8,495 | 8.83 |
| Wexford | Carlow | 16,117 | 9.83 |
| Wicklow | Carlow | 9,641 | 6.19 |
| Clare | Tipperary | 8,170 | 6.39 |
| Kerry | Cork | 6,748 | 4.31 |
| Waterford | Kilkenny | 10,395 | 8.16 |
| Galway | Mayo | 8,259 | 2.97 |
| Leitrim | Longford | 35,199 | 100.00 |
| Cavan | Longford | 5,776 | 7.07 |
| Donegal | Sligo | 17,528 | 10.49 |

Figure 7: Sol6 (174 seats, 45 constituencies, 15 transfers, 29,595.12 persons per TD, Δ_{max} 350 (1.18% of 29,592), weighted variation 0.80%)

3.7 Solution Sol7

Table 20: Solution 7

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol7 | 174 | 400 | 1.35 | 2.70 | 29,192.00 | 29,992.00 | 29,595.75 | 88,988.56 | 0.91 | 14 | 200,095 | 47 | 18/25/4 | 3.70 | Optimal | 150.82 | 0.0100 |

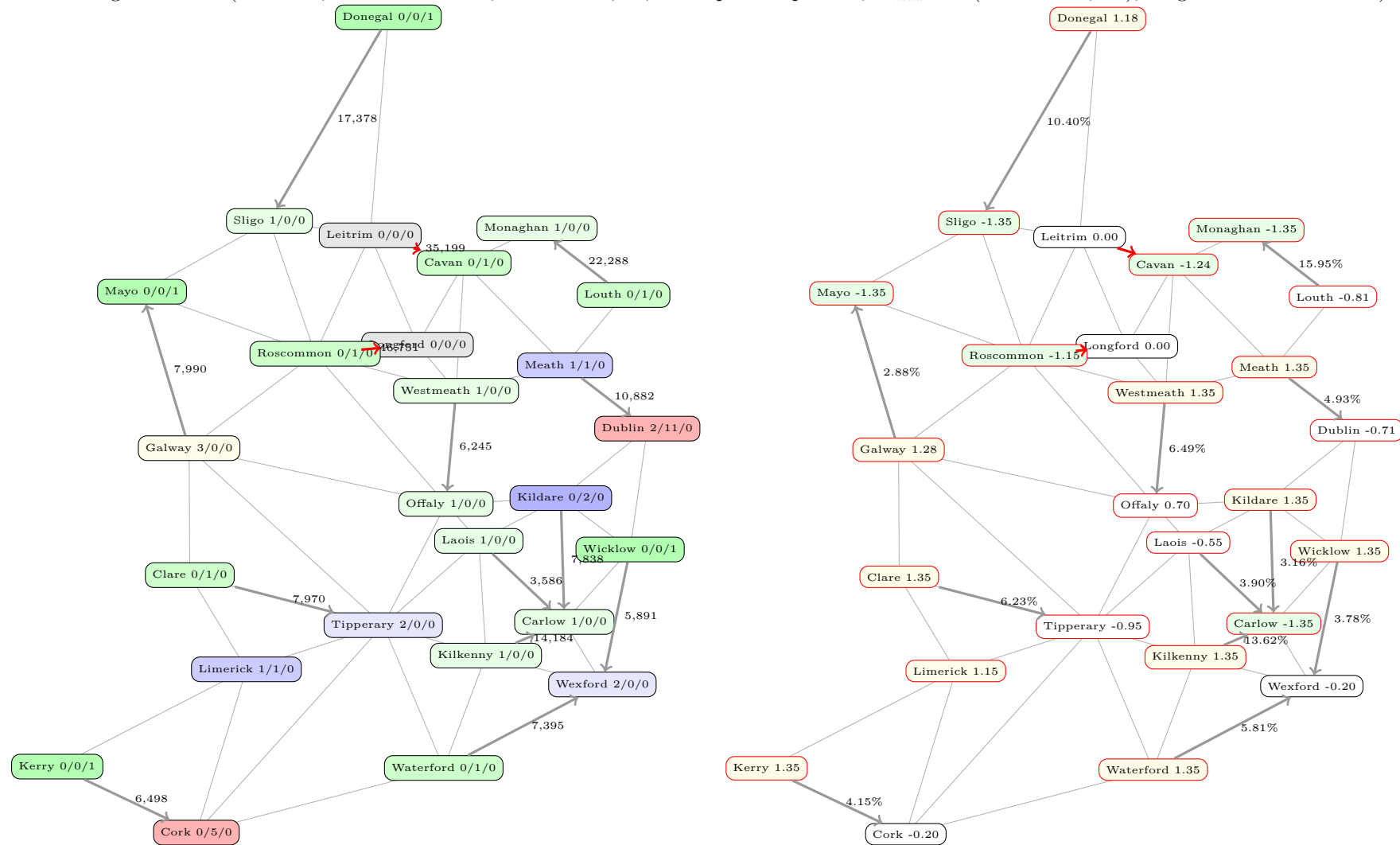
Table 21: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 25,608 | 87,576 | 1 | 1/0/0 | 3 | 29,192.00 | -1.35 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 7,970 | 0 | 119,968 | 1 | 0/1/0 | 4 | 29,992.00 | 1.35 |
| Cork | 584,156 | 19.74 | 0 | 6,498 | 590,654 | 5 | 0/5/0 | 20 | 29,532.70 | -0.20 |
| Donegal | 167,084 | 5.65 | 17,378 | 0 | 149,706 | 1 | 0/0/1 | 5 | 29,941.20 | 1.18 |
| Dublin | 1,458,154 | 49.28 | 0 | 10,882 | 1,469,036 | 13 | 2/11/0 | 50 | 29,380.72 | -0.71 |
| Galway | 277,737 | 9.39 | 7,990 | 0 | 269,747 | 3 | 3/0/0 | 9 | 29,971.89 | 1.28 |
| Kerry | 156,458 | 5.29 | 6,498 | 0 | 149,960 | 1 | 0/0/1 | 5 | 29,992.00 | 1.35 |
| Kildare | 247,774 | 8.37 | 7,838 | 0 | 239,936 | 2 | 0/2/0 | 8 | 29,992.00 | 1.35 |
| Kilkenny | 104,160 | 3.52 | 14,184 | 0 | 89,976 | 1 | 1/0/0 | 3 | 29,992.00 | 1.35 |
| Laois | 91,877 | 3.10 | 3,586 | 0 | 88,291 | 1 | 1/0/0 | 3 | 29,430.33 | -0.55 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 22,288 | 0 | 117,415 | 1 | 0/1/0 | 4 | 29,353.75 | -0.81 |
| Mayo | 137,970 | 4.66 | 0 | 7,990 | 145,960 | 1 | 0/0/1 | 5 | 29,192.00 | -1.35 |
| Meath | 220,826 | 7.46 | 10,882 | 0 | 209,944 | 2 | 1/1/0 | 7 | 29,992.00 | 1.35 |
| Monaghan | 65,288 | 2.21 | 0 | 22,288 | 87,576 | 1 | 1/0/0 | 3 | 29,192.00 | -1.35 |
| Offaly | 83,150 | 2.81 | 0 | 6,245 | 89,395 | 1 | 1/0/0 | 3 | 29,798.33 | 0.70 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 17,378 | 87,576 | 1 | 1/0/0 | 3 | 29,192.00 | -1.35 |
| Tipperary | 167,895 | 5.67 | 0 | 7,970 | 175,865 | 2 | 2/0/0 | 6 | 29,310.83 | -0.95 |
| Waterford | 127,363 | 4.30 | 7,395 | 0 | 119,968 | 1 | 0/1/0 | 4 | 29,992.00 | 1.35 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 6,245 | 0 | 89,976 | 1 | 1/0/0 | 3 | 29,992.00 | 1.35 |
| Wexford | 163,919 | 5.54 | 0 | 13,286 | 177,205 | 2 | 2/0/0 | 6 | 29,534.17 | -0.20 |
| Wicklow | 155,851 | 5.27 | 5,891 | 0 | 149,960 | 1 | 0/0/1 | 5 | 29,992.00 | 1.35 |

Table 22: 14 Transfers (Total 200095)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 7,838 | 3.16 |
| Kilkenny | Carlow | 14,184 | 13.62 |
| Laois | Carlow | 3,586 | 3.90 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 22,288 | 15.95 |
| Meath | Dublin | 10,882 | 4.93 |
| Westmeath | Offaly | 6,245 | 6.49 |
| Wicklow | Wexford | 5,891 | 3.78 |
| Clare | Tipperary | 7,970 | 6.23 |
| Kerry | Cork | 6,498 | 4.15 |
| Waterford | Wexford | 7,395 | 5.81 |
| Galway | Mayo | 7,990 | 2.88 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 17,378 | 10.40 |

Figure 8: Sol7 (174 seats, 47 constituencies, 14 transfers, 29,595.75 persons per TD, Δ_{max} 400 (1.35% of 29,592), weighted variation 0.91%)

3.8 Solution Sol8

Table 23: Solution 8

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol8 | 174 | 450 | 1.52 | 3.04 | 29,142.00 | 30,042.00 | 29,596.33 | 106,409.03 | 0.99 | 14 | 197,995 | 42 | 13/10/19 | 4.14 | Solution | 302.61 | 4.7901 |

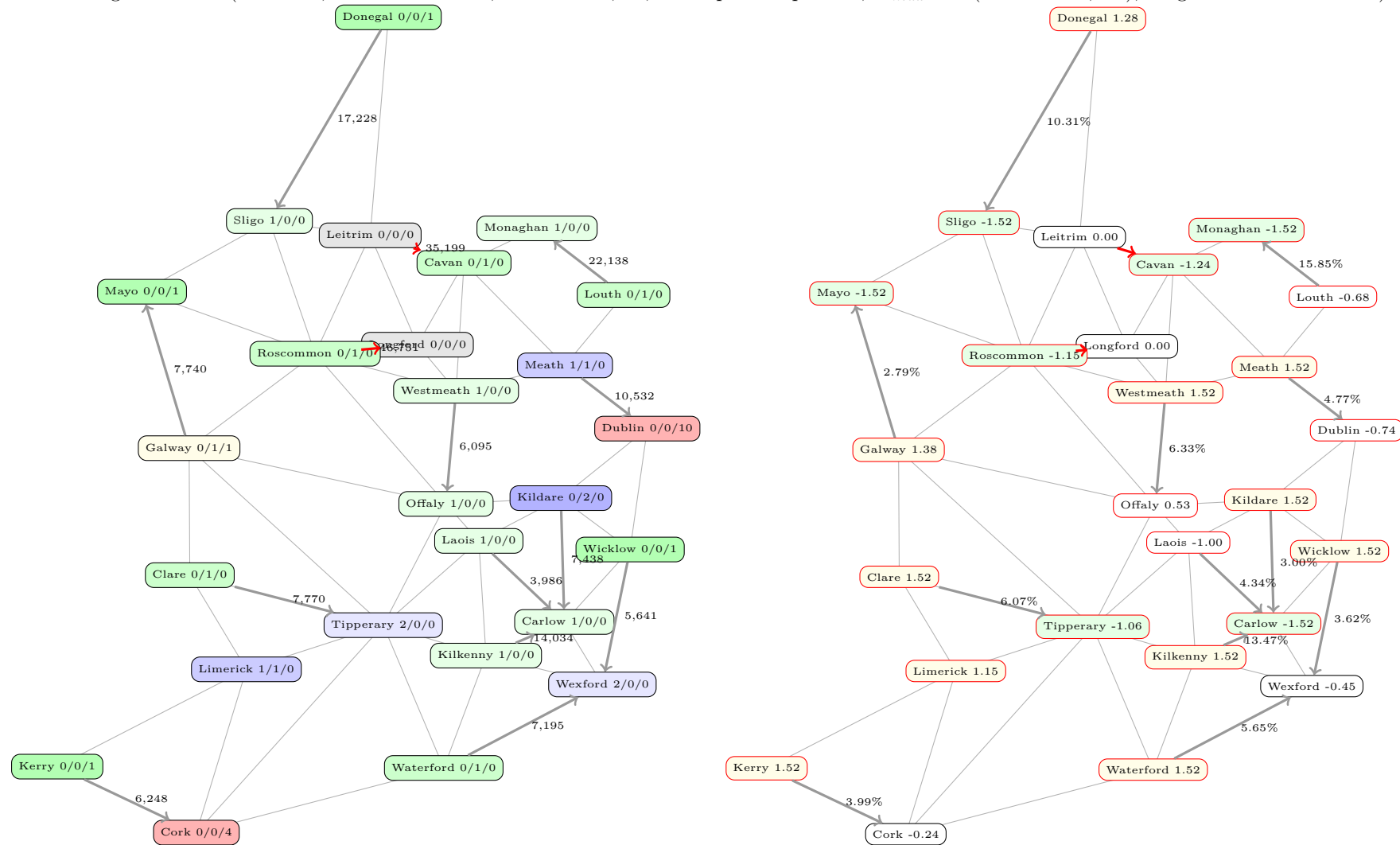
Table 24: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 25,458 | 87,426 | 1 | 1/0/0 | 3 | 29,142.00 | -1.52 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 7,770 | 0 | 120,168 | 1 | 0/1/0 | 4 | 30,042.00 | 1.52 |
| Cork | 584,156 | 19.74 | 0 | 6,248 | 590,404 | 4 | 0/0/4 | 20 | 29,520.20 | -0.24 |
| Donegal | 167,084 | 5.65 | 17,228 | 0 | 149,856 | 1 | 0/0/1 | 5 | 29,971.20 | 1.28 |
| Dublin | 1,458,154 | 49.28 | 0 | 10,532 | 1,468,686 | 10 | 0/0/10 | 50 | 29,373.72 | -0.74 |
| Galway | 277,737 | 9.39 | 7,740 | 0 | 269,997 | 2 | 0/1/1 | 9 | 29,999.67 | 1.38 |
| Kerry | 156,458 | 5.29 | 6,248 | 0 | 150,210 | 1 | 0/0/1 | 5 | 30,042.00 | 1.52 |
| Kildare | 247,774 | 8.37 | 7,438 | 0 | 240,336 | 2 | 0/2/0 | 8 | 30,042.00 | 1.52 |
| Kilkenny | 104,160 | 3.52 | 14,034 | 0 | 90,126 | 1 | 1/0/0 | 3 | 30,042.00 | 1.52 |
| Laois | 91,877 | 3.10 | 3,986 | 0 | 87,891 | 1 | 1/0/0 | 3 | 29,297.00 | -1.00 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 22,138 | 0 | 117,565 | 1 | 0/1/0 | 4 | 29,391.25 | -0.68 |
| Mayo | 137,970 | 4.66 | 0 | 7,740 | 145,710 | 1 | 0/0/1 | 5 | 29,142.00 | -1.52 |
| Meath | 220,826 | 7.46 | 10,532 | 0 | 210,294 | 2 | 1/1/0 | 7 | 30,042.00 | 1.52 |
| Monaghan | 65,288 | 2.21 | 0 | 22,138 | 87,426 | 1 | 1/0/0 | 3 | 29,142.00 | -1.52 |
| Offaly | 83,150 | 2.81 | 0 | 6,095 | 89,245 | 1 | 1/0/0 | 3 | 29,748.33 | 0.53 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 17,228 | 87,426 | 1 | 1/0/0 | 3 | 29,142.00 | -1.52 |
| Tipperary | 167,895 | 5.67 | 0 | 7,770 | 175,665 | 2 | 2/0/0 | 6 | 29,277.50 | -1.06 |
| Waterford | 127,363 | 4.30 | 7,195 | 0 | 120,168 | 1 | 0/1/0 | 4 | 30,042.00 | 1.52 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 6,095 | 0 | 90,126 | 1 | 1/0/0 | 3 | 30,042.00 | 1.52 |
| Wexford | 163,919 | 5.54 | 0 | 12,836 | 176,755 | 2 | 2/0/0 | 6 | 29,459.17 | -0.45 |
| Wicklow | 155,851 | 5.27 | 5,641 | 0 | 150,210 | 1 | 0/0/1 | 5 | 30,042.00 | 1.52 |

Table 25: 14 Transfers (Total 197995)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 7,438 | 3.00 |
| Kilkenny | Carlow | 14,034 | 13.47 |
| Laois | Carlow | 3,986 | 4.34 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 22,138 | 15.85 |
| Meath | Dublin | 10,532 | 4.77 |
| Westmeath | Offaly | 6,095 | 6.33 |
| Wicklow | Wexford | 5,641 | 3.62 |
| Clare | Tipperary | 7,770 | 6.07 |
| Kerry | Cork | 6,248 | 3.99 |
| Waterford | Wexford | 7,195 | 5.65 |
| Galway | Mayo | 7,740 | 2.79 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 17,228 | 10.31 |

Figure 9: Sol8 (174 seats, 42 constituencies, 14 transfers, 29,596.33 persons per TD, Δ_{max} 450 (1.52% of 29,592), weighted variation 0.99%)

3.9 Solution Sol9

Table 26: Solution 9

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol9 | 174 | 500 | 1.69 | 3.38 | 29,092.00 | 30,092.00 | 29,596.74 | 118,044.23 | 0.93 | 14 | 195,056 | 51 | 36/9/6 | 3.41 | Solution | 300.30 | 0.8237 |

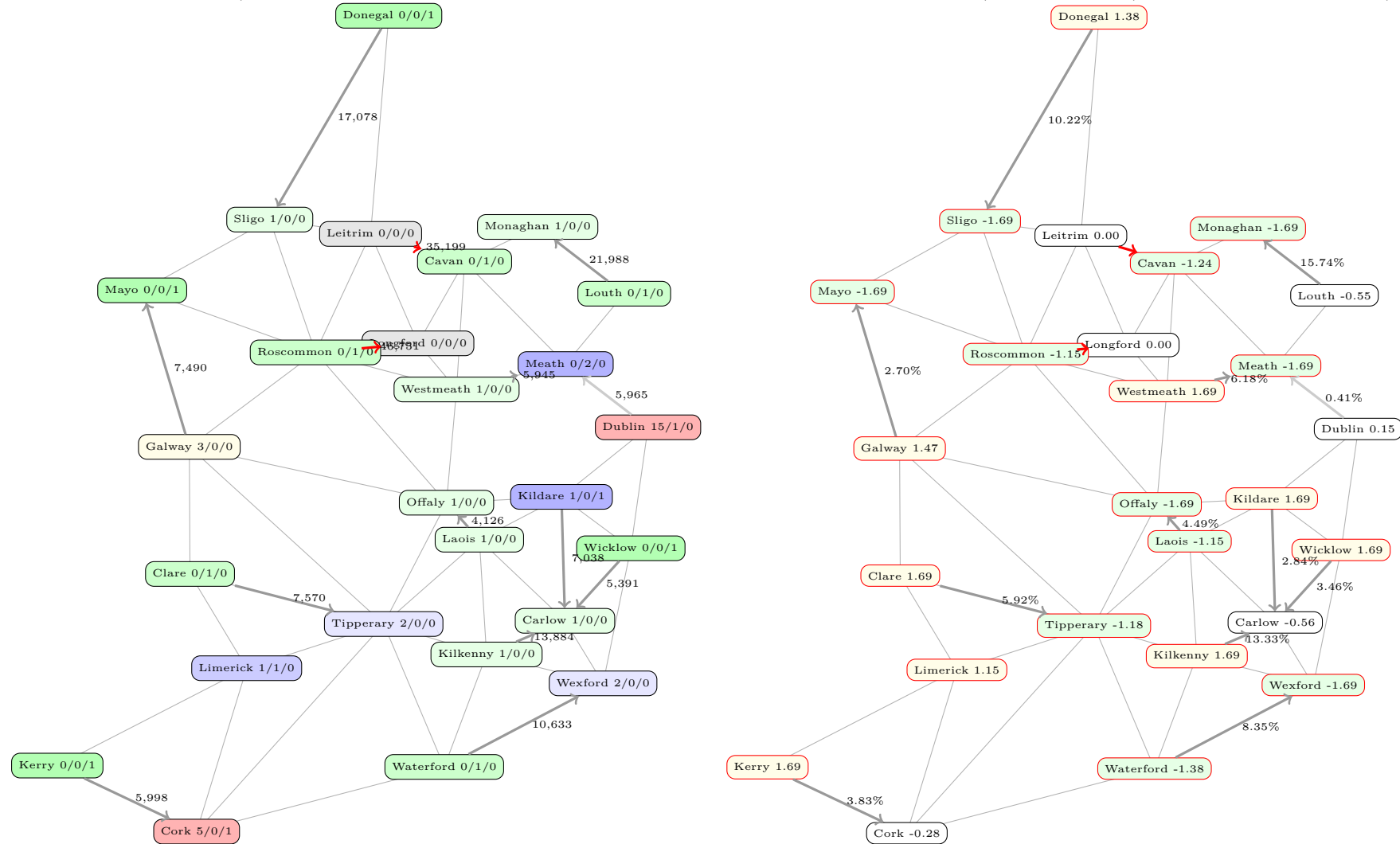
Table 27: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 26,313 | 88,281 | 1 | 1/0/0 | 3 | 29,427.00 | -0.56 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 7,570 | 0 | 120,368 | 1 | 0/1/0 | 4 | 30,092.00 | 1.69 |
| Cork | 584,156 | 19.74 | 0 | 5,998 | 590,154 | 6 | 5/0/1 | 20 | 29,507.70 | -0.28 |
| Donegal | 167,084 | 5.65 | 17,078 | 0 | 150,006 | 1 | 0/0/1 | 5 | 30,001.20 | 1.38 |
| Dublin | 1,458,154 | 49.28 | 5,965 | 0 | 1,452,189 | 16 | 15/1/0 | 49 | 29,636.51 | 0.15 |
| Galway | 277,737 | 9.39 | 7,490 | 0 | 270,247 | 3 | 3/0/0 | 9 | 30,027.44 | 1.47 |
| Kerry | 156,458 | 5.29 | 5,998 | 0 | 150,460 | 1 | 0/0/1 | 5 | 30,092.00 | 1.69 |
| Kildare | 247,774 | 8.37 | 7,038 | 0 | 240,736 | 2 | 1/0/1 | 8 | 30,092.00 | 1.69 |
| Kilkenny | 104,160 | 3.52 | 13,884 | 0 | 90,276 | 1 | 1/0/0 | 3 | 30,092.00 | 1.69 |
| Laois | 91,877 | 3.10 | 4,126 | 0 | 87,751 | 1 | 1/0/0 | 3 | 29,250.33 | -1.15 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 21,988 | 0 | 117,715 | 1 | 0/1/0 | 4 | 29,428.75 | -0.55 |
| Mayo | 137,970 | 4.66 | 0 | 7,490 | 145,460 | 1 | 0/0/1 | 5 | 29,092.00 | -1.69 |
| Meath | 220,826 | 7.46 | 0 | 11,910 | 232,736 | 2 | 0/2/0 | 8 | 29,092.00 | -1.69 |
| Monaghan | 65,288 | 2.21 | 0 | 21,988 | 87,276 | 1 | 1/0/0 | 3 | 29,092.00 | -1.69 |
| Offaly | 83,150 | 2.81 | 0 | 4,126 | 87,276 | 1 | 1/0/0 | 3 | 29,092.00 | -1.69 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 17,078 | 87,276 | 1 | 1/0/0 | 3 | 29,092.00 | -1.69 |
| Tipperary | 167,895 | 5.67 | 0 | 7,570 | 175,465 | 2 | 2/0/0 | 6 | 29,244.17 | -1.18 |
| Waterford | 127,363 | 4.30 | 10,633 | 0 | 116,730 | 1 | 0/1/0 | 4 | 29,182.50 | -1.38 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 5,945 | 0 | 90,276 | 1 | 1/0/0 | 3 | 30,092.00 | 1.69 |
| Wexford | 163,919 | 5.54 | 0 | 10,633 | 174,552 | 2 | 2/0/0 | 6 | 29,092.00 | -1.69 |
| Wicklow | 155,851 | 5.27 | 5,391 | 0 | 150,460 | 1 | 0/0/1 | 5 | 30,092.00 | 1.69 |

Table 28: 14 Transfers (Total 195056)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Dublin | Meath | 5,965 | 0.41 |
| Kildare | Carlow | 7,038 | 2.84 |
| Kilkenny | Carlow | 13,884 | 13.33 |
| Laois | Offaly | 4,126 | 4.49 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 21,988 | 15.74 |
| Westmeath | Meath | 5,945 | 6.18 |
| Wicklow | Carlow | 5,391 | 3.46 |
| Clare | Tipperary | 7,570 | 5.92 |
| Kerry | Cork | 5,998 | 3.83 |
| Waterford | Wexford | 10,633 | 8.35 |
| Galway | Mayo | 7,490 | 2.70 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 17,078 | 10.22 |

Figure 10: Sol9 (174 seats, 51 constituencies, 14 transfers, 29,596.74 persons per TD, Δ_{max} 500 (1.69% of 29,592), weighted variation 0.93%)

3.10 Solution Sol10

Table 29: Solution 10

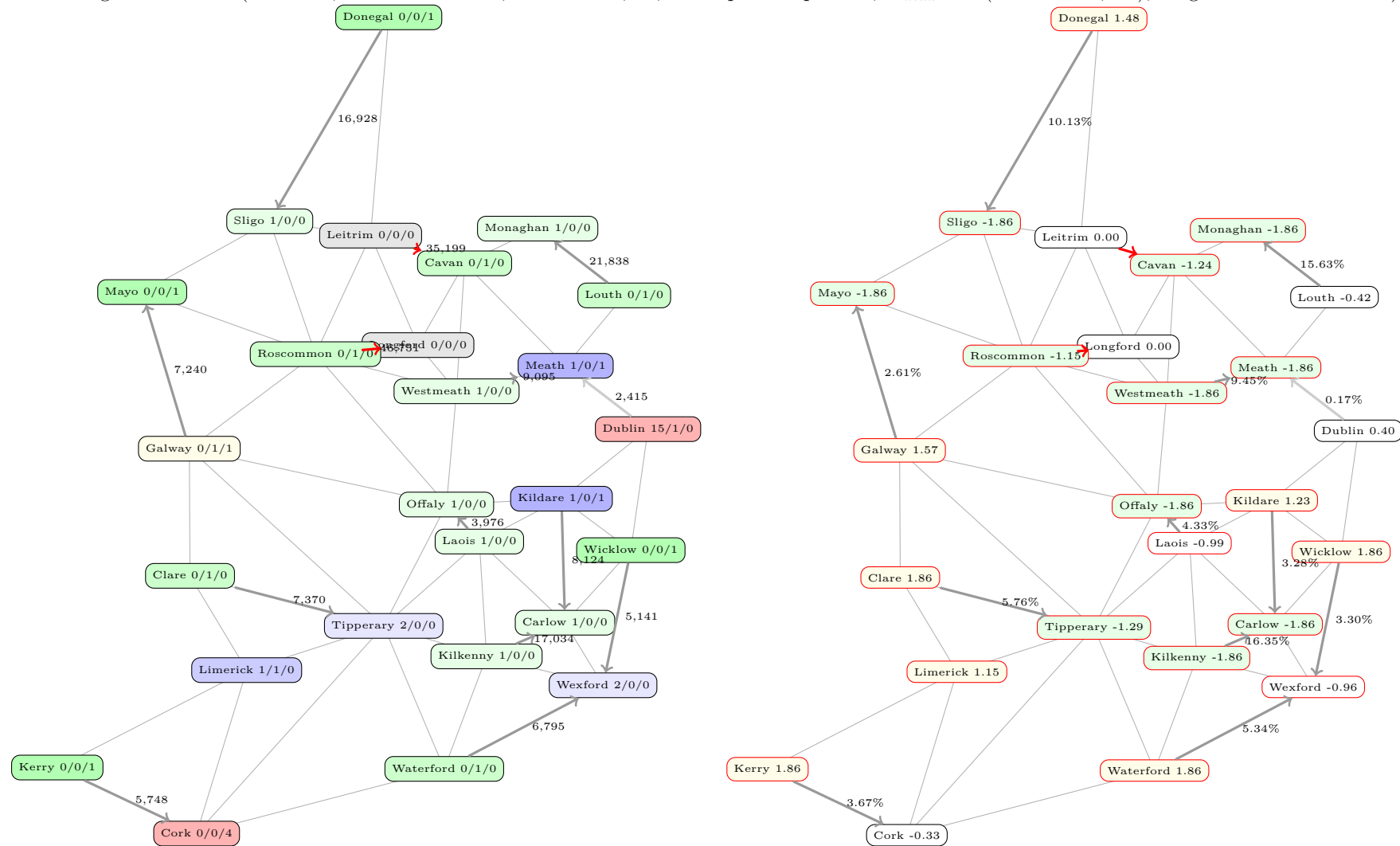
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol10 | 174 | 550 | 1.86 | 3.72 | 29,042.00 | 30,142.00 | 29,597.24 | 132,658.11 | 1.03 | 14 | 193,654 | 48 | 29/8/11 | 3.63 | Optimal | 184.70 | 0.0100 |

Table 30: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 25,158 | 87,126 | 1 | 1/0/0 | 3 | 29,042.00 | -1.86 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 7,370 | 0 | 120,568 | 1 | 0/1/0 | 4 | 30,142.00 | 1.86 |
| Cork | 584,156 | 19.74 | 0 | 5,748 | 589,904 | 4 | 0/0/4 | 20 | 29,495.20 | -0.33 |
| Donegal | 167,084 | 5.65 | 16,928 | 0 | 150,156 | 1 | 0/0/1 | 5 | 30,031.20 | 1.48 |
| Dublin | 1,458,154 | 49.28 | 2,415 | 0 | 1,455,739 | 16 | 15/1/0 | 49 | 29,708.96 | 0.40 |
| Galway | 277,737 | 9.39 | 7,240 | 0 | 270,497 | 2 | 0/1/1 | 9 | 30,055.22 | 1.57 |
| Kerry | 156,458 | 5.29 | 5,748 | 0 | 150,710 | 1 | 0/0/1 | 5 | 30,142.00 | 1.86 |
| Kildare | 247,774 | 8.37 | 8,124 | 0 | 239,650 | 2 | 1/0/1 | 8 | 29,956.25 | 1.23 |
| Kilkenny | 104,160 | 3.52 | 17,034 | 0 | 87,126 | 1 | 1/0/0 | 3 | 29,042.00 | -1.86 |
| Laois | 91,877 | 3.10 | 3,976 | 0 | 87,901 | 1 | 1/0/0 | 3 | 29,300.33 | -0.99 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 21,838 | 0 | 117,865 | 1 | 0/1/0 | 4 | 29,466.25 | -0.42 |
| Mayo | 137,970 | 4.66 | 0 | 7,240 | 145,210 | 1 | 0/0/1 | 5 | 29,042.00 | -1.86 |
| Meath | 220,826 | 7.46 | 0 | 11,510 | 232,336 | 2 | 1/0/1 | 8 | 29,042.00 | -1.86 |
| Monaghan | 65,288 | 2.21 | 0 | 21,838 | 87,126 | 1 | 1/0/0 | 3 | 29,042.00 | -1.86 |
| Offaly | 83,150 | 2.81 | 0 | 3,976 | 87,126 | 1 | 1/0/0 | 3 | 29,042.00 | -1.86 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 16,928 | 87,126 | 1 | 1/0/0 | 3 | 29,042.00 | -1.86 |
| Tipperary | 167,895 | 5.67 | 0 | 7,370 | 175,265 | 2 | 2/0/0 | 6 | 29,210.83 | -1.29 |
| Waterford | 127,363 | 4.30 | 6,795 | 0 | 120,568 | 1 | 0/1/0 | 4 | 30,142.00 | 1.86 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 9,095 | 0 | 87,126 | 1 | 1/0/0 | 3 | 29,042.00 | -1.86 |
| Wexford | 163,919 | 5.54 | 0 | 11,936 | 175,855 | 2 | 2/0/0 | 6 | 29,309.17 | -0.96 |
| Wicklow | 155,851 | 5.27 | 5,141 | 0 | 150,710 | 1 | 0/0/1 | 5 | 30,142.00 | 1.86 |

| Table 31: 14 Transfers (Total 193654) | | | |
|---------------------------------------|-----------|--------|-----------------|
| From | To | Volume | Percent of From |
| Dublin | Meath | 2,415 | 0.17 |
| Kildare | Carlow | 8,124 | 3.28 |
| Kilkenny | Carlow | 17,034 | 16.35 |
| Laois | Offaly | 3,976 | 4.33 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 21,838 | 15.63 |
| Westmeath | Meath | 9,095 | 9.45 |
| Wicklow | Wexford | 5,141 | 3.30 |
| Clare | Tipperary | 7,370 | 5.76 |
| Kerry | Cork | 5,748 | 3.67 |
| Waterford | Wexford | 6,795 | 5.34 |
| Galway | Mayo | 7,240 | 2.61 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 16,928 | 10.13 |

Figure 11: Sol10 (174 seats, 48 constituencies, 14 transfers, 29,597.24 persons per TD, Δ_{max} 550 (1.86% of 29,592), weighted variation 1.03%)

3.11 Solution Sol11

Table 32: Solution 11

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol11 | 174 | 600 | 2.03 | 4.06 | 28,992.00 | 30,192.00 | 29,598.63 | 173,677.46 | 1.22 | 14 | 190,051 | 50 | 33/10/7 | 3.48 | Solution | 303.18 | 6.4295 |

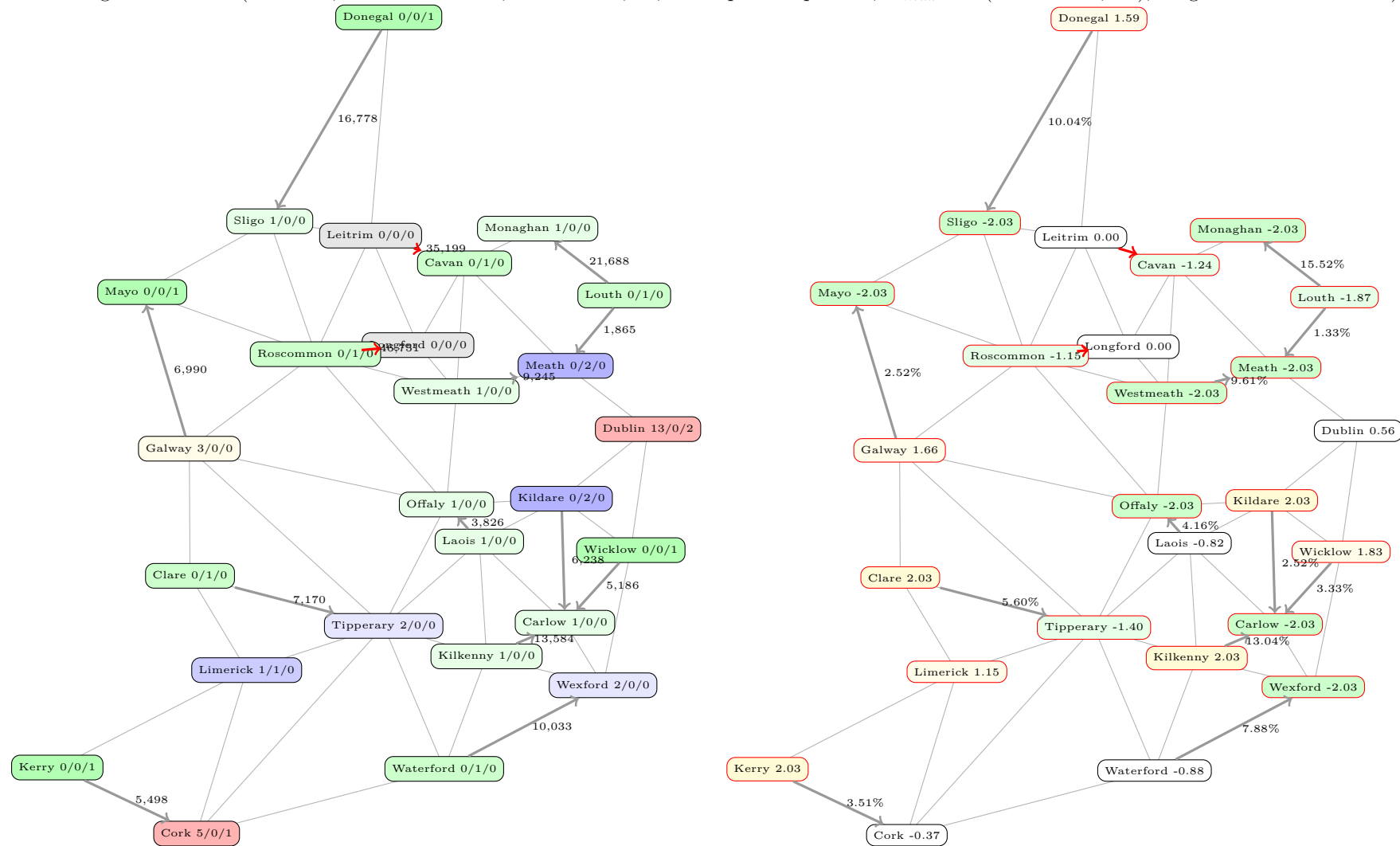
Table 33: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 25,008 | 86,976 | 1 | 1/0/0 | 3 | 28,992.00 | -2.03 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 7,170 | 0 | 120,768 | 1 | 0/1/0 | 4 | 30,192.00 | 2.03 |
| Cork | 584,156 | 19.74 | 0 | 5,498 | 589,654 | 6 | 5/0/1 | 20 | 29,482.70 | -0.37 |
| Donegal | 167,084 | 5.65 | 16,778 | 0 | 150,306 | 1 | 0/0/1 | 5 | 30,061.20 | 1.59 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 15 | 13/0/2 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 6,990 | 0 | 270,747 | 3 | 3/0/0 | 9 | 30,083.00 | 1.66 |
| Kerry | 156,458 | 5.29 | 5,498 | 0 | 150,960 | 1 | 0/0/1 | 5 | 30,192.00 | 2.03 |
| Kildare | 247,774 | 8.37 | 6,238 | 0 | 241,536 | 2 | 0/2/0 | 8 | 30,192.00 | 2.03 |
| Kilkenny | 104,160 | 3.52 | 13,584 | 0 | 90,576 | 1 | 1/0/0 | 3 | 30,192.00 | 2.03 |
| Laois | 91,877 | 3.10 | 3,826 | 0 | 88,051 | 1 | 1/0/0 | 3 | 29,350.33 | -0.82 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 23,553 | 0 | 116,150 | 1 | 0/1/0 | 4 | 29,037.50 | -1.87 |
| Mayo | 137,970 | 4.66 | 0 | 6,990 | 144,960 | 1 | 0/0/1 | 5 | 28,992.00 | -2.03 |
| Meath | 220,826 | 7.46 | 0 | 11,110 | 231,936 | 2 | 0/2/0 | 8 | 28,992.00 | -2.03 |
| Monaghan | 65,288 | 2.21 | 0 | 21,688 | 86,976 | 1 | 1/0/0 | 3 | 28,992.00 | -2.03 |
| Offaly | 83,150 | 2.81 | 0 | 3,826 | 86,976 | 1 | 1/0/0 | 3 | 28,992.00 | -2.03 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 16,778 | 86,976 | 1 | 1/0/0 | 3 | 28,992.00 | -2.03 |
| Tipperary | 167,895 | 5.67 | 0 | 7,170 | 175,065 | 2 | 2/0/0 | 6 | 29,177.50 | -1.40 |
| Waterford | 127,363 | 4.30 | 10,033 | 0 | 117,330 | 1 | 0/1/0 | 4 | 29,332.50 | -0.88 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 9,245 | 0 | 86,976 | 1 | 1/0/0 | 3 | 28,992.00 | -2.03 |
| Wexford | 163,919 | 5.54 | 0 | 10,033 | 173,952 | 2 | 2/0/0 | 6 | 28,992.00 | -2.03 |
| Wicklow | 155,851 | 5.27 | 5,186 | 0 | 150,665 | 1 | 0/0/1 | 5 | 30,133.00 | 1.83 |

Table 34: 14 Transfers (Total 190051)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 6,238 | 2.52 |
| Kilkenny | Carlow | 13,584 | 13.04 |
| Laois | Offaly | 3,826 | 4.16 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Meath | 1,865 | 1.33 |
| Louth | Monaghan | 21,688 | 15.52 |
| Westmeath | Meath | 9,245 | 9.61 |
| Wicklow | Carlow | 5,186 | 3.33 |
| Clare | Tipperary | 7,170 | 5.60 |
| Kerry | Cork | 5,498 | 3.51 |
| Waterford | Wexford | 10,033 | 7.88 |
| Galway | Mayo | 6,990 | 2.52 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 16,778 | 10.04 |

Figure 12: Sol11 (174 seats, 50 constituencies, 14 transfers, 29,598.63 persons per TD, Δ_{max} 600 (2.03% of 29,592), weighted variation 1.22%)

3.12 Solution Sol12

Table 35: Solution 12

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol12 | 174 | 650 | 2.20 | 4.39 | 28,942.00 | 30,242.00 | 29,598.71 | 175,911.50 | 1.17 | 13 | 210,337 | 45 | 14/23/8 | 3.87 | Optimal | 16.16 | 0.0100 |

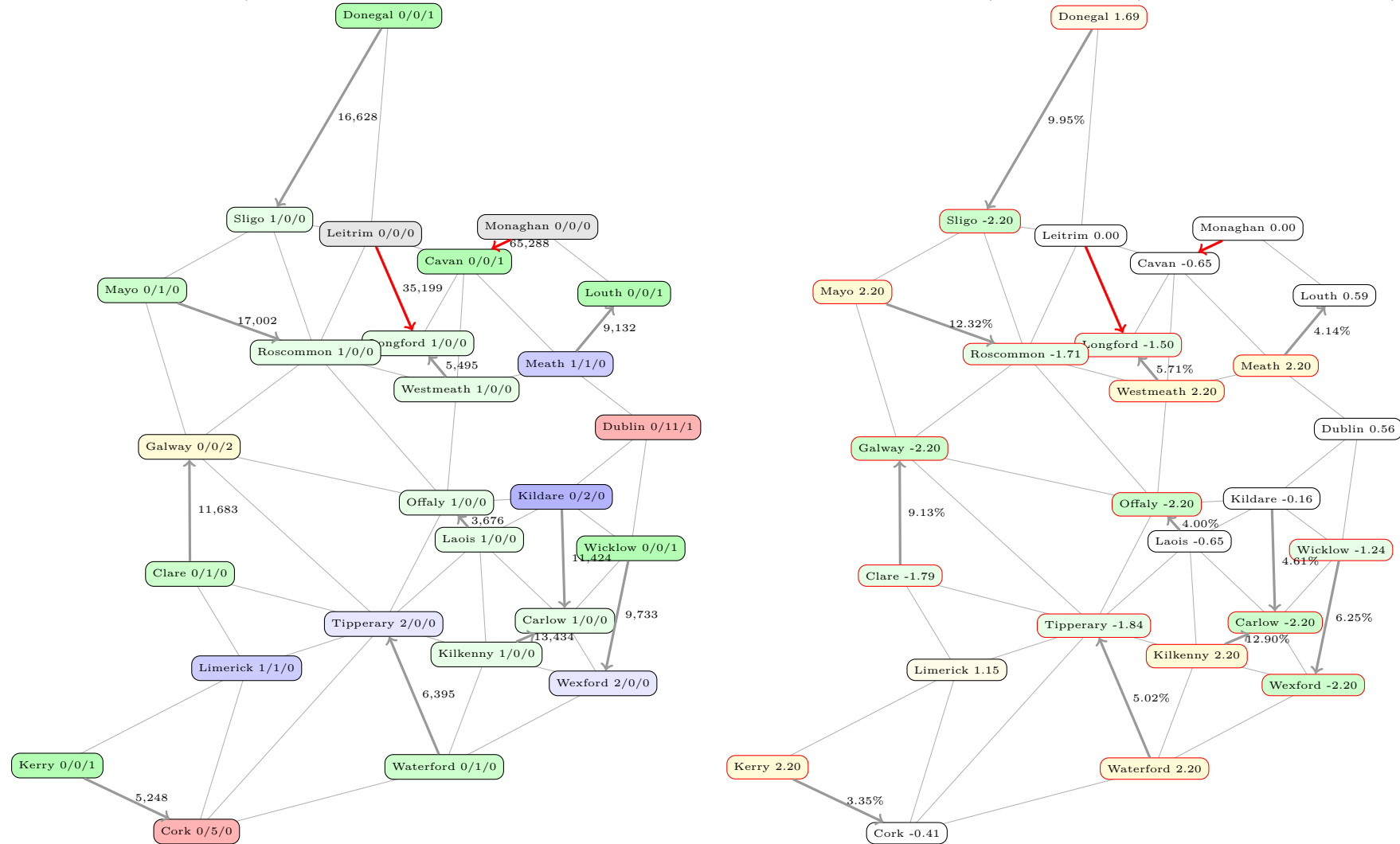
Table 36: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 24,858 | 86,826 | 1 | 1/0/0 | 3 | 28,942.00 | -2.20 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 11,683 | 0 | 116,255 | 1 | 0/1/0 | 4 | 29,063.75 | -1.79 |
| Cork | 584,156 | 19.74 | 0 | 5,248 | 589,404 | 5 | 0/5/0 | 20 | 29,470.20 | -0.41 |
| Donegal | 167,084 | 5.65 | 16,628 | 0 | 150,456 | 1 | 0/0/1 | 5 | 30,091.20 | 1.69 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 12 | 0/11/1 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 11,683 | 289,420 | 2 | 0/0/2 | 10 | 28,942.00 | -2.20 |
| Kerry | 156,458 | 5.29 | 5,248 | 0 | 151,210 | 1 | 0/0/1 | 5 | 30,242.00 | 2.20 |
| Kildare | 247,774 | 8.37 | 11,424 | 0 | 236,350 | 2 | 0/2/0 | 8 | 29,543.75 | -0.16 |
| Kilkenny | 104,160 | 3.52 | 13,434 | 0 | 90,726 | 1 | 1/0/0 | 3 | 30,242.00 | 2.20 |
| Laois | 91,877 | 3.10 | 3,676 | 0 | 88,201 | 1 | 1/0/0 | 3 | 29,400.33 | -0.65 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 40,694 | 87,445 | 1 | 1/0/0 | 3 | 29,148.33 | -1.50 |
| Louth | 139,703 | 4.72 | 0 | 9,132 | 148,835 | 1 | 0/0/1 | 5 | 29,767.00 | 0.59 |
| Mayo | 137,970 | 4.66 | 17,002 | 0 | 120,968 | 1 | 0/1/0 | 4 | 30,242.00 | 2.20 |
| Meath | 220,826 | 7.46 | 9,132 | 0 | 211,694 | 2 | 1/1/0 | 7 | 30,242.00 | 2.20 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 3,676 | 86,826 | 1 | 1/0/0 | 3 | 28,942.00 | -2.20 |
| Roscommon | 70,259 | 2.37 | 0 | 17,002 | 87,261 | 1 | 1/0/0 | 3 | 29,087.00 | -1.71 |
| Sligo | 70,198 | 2.37 | 0 | 16,628 | 86,826 | 1 | 1/0/0 | 3 | 28,942.00 | -2.20 |
| Tipperary | 167,895 | 5.67 | 0 | 6,395 | 174,290 | 2 | 2/0/0 | 6 | 29,048.33 | -1.84 |
| Waterford | 127,363 | 4.30 | 6,395 | 0 | 120,968 | 1 | 0/1/0 | 4 | 30,242.00 | 2.20 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 5,495 | 0 | 90,726 | 1 | 1/0/0 | 3 | 30,242.00 | 2.20 |
| Wexford | 163,919 | 5.54 | 0 | 9,733 | 173,652 | 2 | 2/0/0 | 6 | 28,942.00 | -2.20 |
| Wicklow | 155,851 | 5.27 | 9,733 | 0 | 146,118 | 1 | 0/0/1 | 5 | 29,223.60 | -1.24 |

Table 37: 13 Transfers (Total 210337)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 11,424 | 4.61 |
| Kilkenny | Carlow | 13,434 | 12.90 |
| Laois | Offaly | 3,676 | 4.00 |
| Meath | Louth | 9,132 | 4.14 |
| Westmeath | Longford | 5,495 | 5.71 |
| Wicklow | Wexford | 9,733 | 6.25 |
| Clare | Galway | 11,683 | 9.13 |
| Kerry | Cork | 5,248 | 3.35 |
| Waterford | Tipperary | 6,395 | 5.02 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 17,002 | 12.32 |
| Donegal | Sligo | 16,628 | 9.95 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 13: Sol12 (174 seats, 45 constituencies, 13 transfers, 29,598.71 persons per TD, Δ_{max} 650 (2.20% of 29,592), weighted variation 1.17%)

3.13 Solution Sol13

Table 38: Solution 13

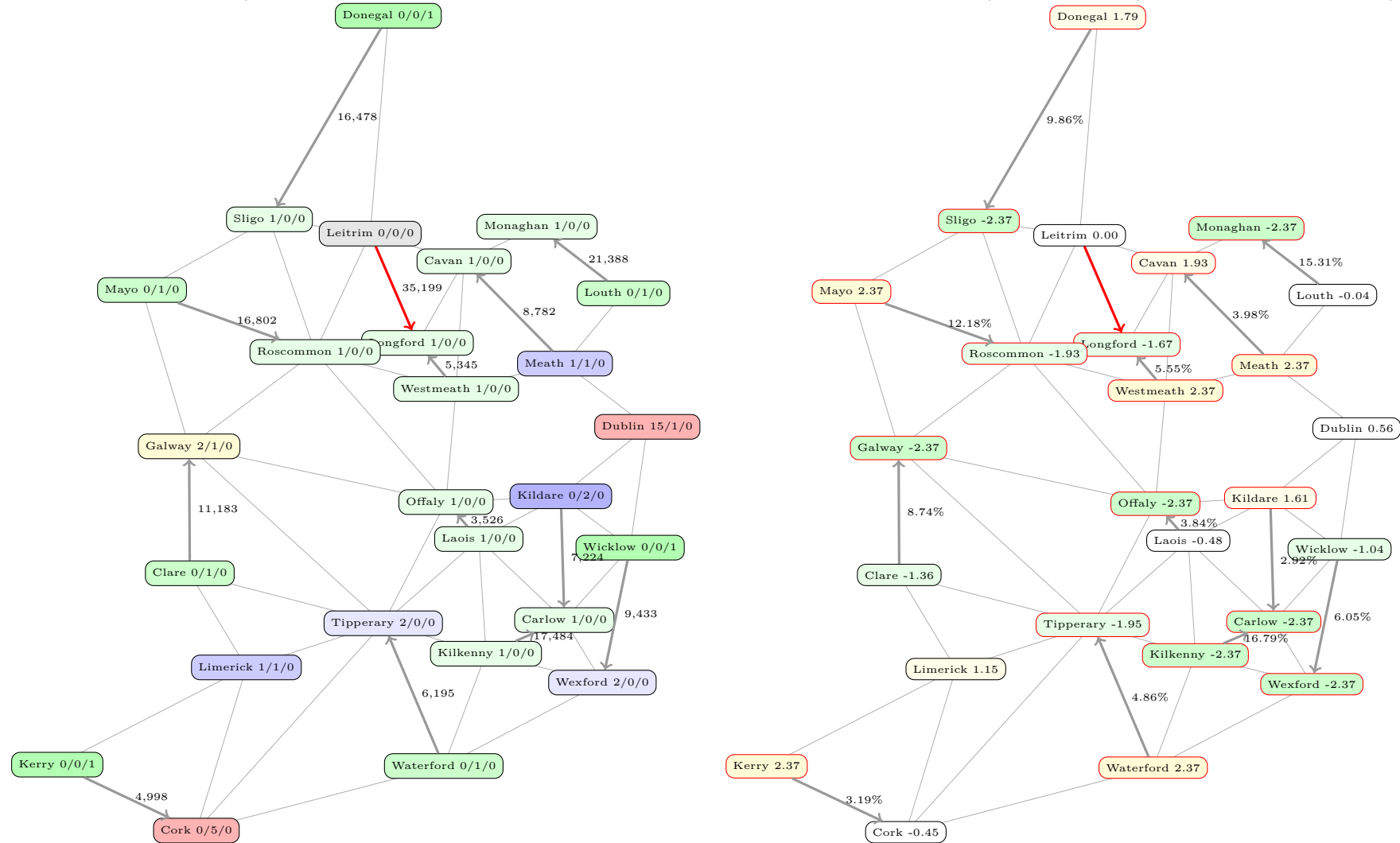
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol13 | 174 | 700 | 2.37 | 4.73 | 28,892.00 | 30,292.00 | 29,600.15 | 218,280.01 | 1.32 | 13 | 164,037 | 51 | 33/15/3 | 3.41 | Optimal | 59.06 | 0.0100 |

Table 39: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 24,708 | 86,676 | 1 | 1/0/0 | 3 | 28,892.00 | -2.37 |
| Cavan | 81,704 | 2.76 | 0 | 8,782 | 90,486 | 1 | 1/0/0 | 3 | 30,162.00 | 1.93 |
| Clare | 127,938 | 4.32 | 11,183 | 0 | 116,755 | 1 | 0/1/0 | 4 | 29,188.75 | -1.36 |
| Cork | 584,156 | 19.74 | 0 | 4,998 | 589,154 | 5 | 0/5/0 | 20 | 29,457.70 | -0.45 |
| Donegal | 167,084 | 5.65 | 16,478 | 0 | 150,606 | 1 | 0/0/1 | 5 | 30,121.20 | 1.79 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 11,183 | 288,920 | 3 | 2/1/0 | 10 | 28,892.00 | -2.37 |
| Kerry | 156,458 | 5.29 | 4,998 | 0 | 151,460 | 1 | 0/0/1 | 5 | 30,292.00 | 2.37 |
| Kildare | 247,774 | 8.37 | 7,224 | 0 | 240,550 | 2 | 0/2/0 | 8 | 30,068.75 | 1.61 |
| Kilkenny | 104,160 | 3.52 | 17,484 | 0 | 86,676 | 1 | 1/0/0 | 3 | 28,892.00 | -2.37 |
| Laois | 91,877 | 3.10 | 3,526 | 0 | 88,351 | 1 | 1/0/0 | 3 | 29,450.33 | -0.48 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 40,544 | 87,295 | 1 | 1/0/0 | 3 | 29,098.33 | -1.67 |
| Louth | 139,703 | 4.72 | 21,388 | 0 | 118,315 | 1 | 0/1/0 | 4 | 29,578.75 | -0.04 |
| Mayo | 137,970 | 4.66 | 16,802 | 0 | 121,168 | 1 | 0/1/0 | 4 | 30,292.00 | 2.37 |
| Meath | 220,826 | 7.46 | 8,782 | 0 | 212,044 | 2 | 1/1/0 | 7 | 30,292.00 | 2.37 |
| Monaghan | 65,288 | 2.21 | 0 | 21,388 | 86,676 | 1 | 1/0/0 | 3 | 28,892.00 | -2.37 |
| Offaly | 83,150 | 2.81 | 0 | 3,526 | 86,676 | 1 | 1/0/0 | 3 | 28,892.00 | -2.37 |
| Roscommon | 70,259 | 2.37 | 0 | 16,802 | 87,061 | 1 | 1/0/0 | 3 | 29,020.33 | -1.93 |
| Sligo | 70,198 | 2.37 | 0 | 16,478 | 86,676 | 1 | 1/0/0 | 3 | 28,892.00 | -2.37 |
| Tipperary | 167,895 | 5.67 | 0 | 6,195 | 174,090 | 2 | 2/0/0 | 6 | 29,015.00 | -1.95 |
| Waterford | 127,363 | 4.30 | 6,195 | 0 | 121,168 | 1 | 0/1/0 | 4 | 30,292.00 | 2.37 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 5,345 | 0 | 90,876 | 1 | 1/0/0 | 3 | 30,292.00 | 2.37 |
| Wexford | 163,919 | 5.54 | 0 | 9,433 | 173,352 | 2 | 2/0/0 | 6 | 28,892.00 | -2.37 |
| Wicklow | 155,851 | 5.27 | 9,433 | 0 | 146,418 | 1 | 0/0/1 | 5 | 29,283.60 | -1.04 |

| Table 40: 13 Transfers (Total 164037) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kildare | Carlow | 7,224 | 2.92 |
| Kilkenny | Carlow | 17,484 | 16.79 |
| Laois | Offaly | 3,526 | 3.84 |
| Louth | Monaghan | 21,388 | 15.31 |
| Meath | Cavan | 8,782 | 3.98 |
| Westmeath | Longford | 5,345 | 5.55 |
| Wicklow | Wexford | 9,433 | 6.05 |
| Clare | Galway | 11,183 | 8.74 |
| Kerry | Cork | 4,998 | 3.19 |
| Waterford | Tipperary | 6,195 | 4.86 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 16,802 | 12.18 |
| Donegal | Sligo | 16,478 | 9.86 |

Figure 14: Sol13 (174 seats, 51 constituencies, 13 transfers, 29,600.15 persons per TD, Δ_{max} 700 (2.37% of 29,592), weighted variation 1.32%)

3.14 Solution Sol14

Table 41: Solution 14

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol14 | 174 | 750 | 2.53 | 5.07 | 28,842.00 | 30,342.00 | 29,600.96 | 242,129.17 | 1.37 | 13 | 161,487 | 45 | 16/19/10 | 3.87 | Optimal | 12.96 | 0.0026 |

Table 42: Counties

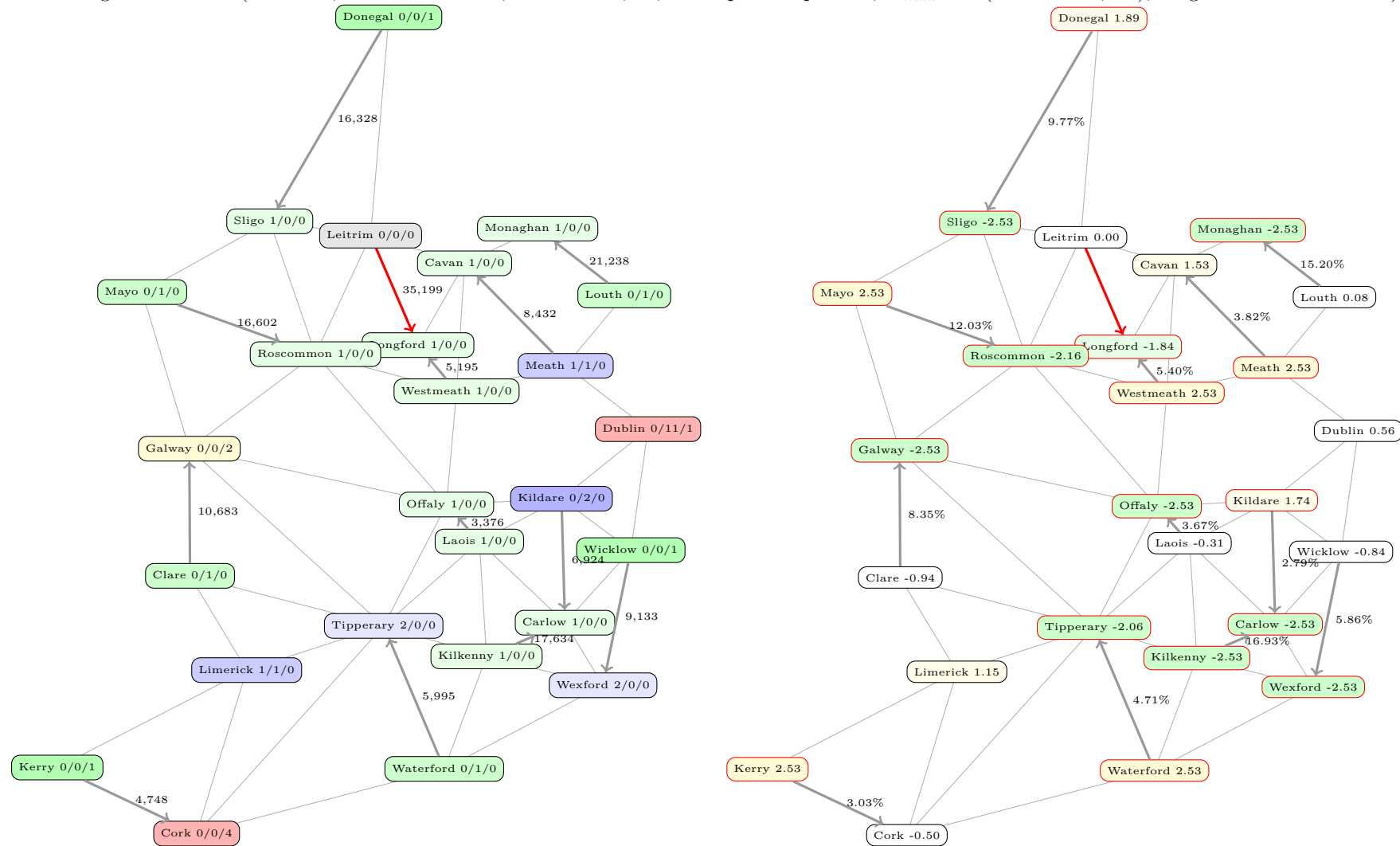
| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 24,558 | 86,526 | 1 | 1/0/0 | 3 | 28,842.00 | -2.53 |
| Cavan | 81,704 | 2.76 | 0 | 8,432 | 90,136 | 1 | 1/0/0 | 3 | 30,045.33 | 1.53 |
| Clare | 127,938 | 4.32 | 10,683 | 0 | 117,255 | 1 | 0/1/0 | 4 | 29,313.75 | -0.94 |
| Cork | 584,156 | 19.74 | 0 | 4,748 | 588,904 | 4 | 0/0/4 | 20 | 29,445.20 | -0.50 |
| Donegal | 167,084 | 5.65 | 16,328 | 0 | 150,756 | 1 | 0/0/1 | 5 | 30,151.20 | 1.89 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 12 | 0/11/1 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 10,683 | 288,420 | 2 | 0/0/2 | 10 | 28,842.00 | -2.53 |
| Kerry | 156,458 | 5.29 | 4,748 | 0 | 151,710 | 1 | 0/0/1 | 5 | 30,342.00 | 2.53 |
| Kildare | 247,774 | 8.37 | 6,924 | 0 | 240,850 | 2 | 0/2/0 | 8 | 30,106.25 | 1.74 |
| Kilkenny | 104,160 | 3.52 | 17,634 | 0 | 86,526 | 1 | 1/0/0 | 3 | 28,842.00 | -2.53 |
| Laois | 91,877 | 3.10 | 3,376 | 0 | 88,501 | 1 | 1/0/0 | 3 | 29,500.33 | -0.31 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 40,394 | 87,145 | 1 | 1/0/0 | 3 | 29,048.33 | -1.84 |
| Louth | 139,703 | 4.72 | 21,238 | 0 | 118,465 | 1 | 0/1/0 | 4 | 29,616.25 | 0.08 |
| Mayo | 137,970 | 4.66 | 16,602 | 0 | 121,368 | 1 | 0/1/0 | 4 | 30,342.00 | 2.53 |
| Meath | 220,826 | 7.46 | 8,432 | 0 | 212,394 | 2 | 1/1/0 | 7 | 30,342.00 | 2.53 |
| Monaghan | 65,288 | 2.21 | 0 | 21,238 | 86,526 | 1 | 1/0/0 | 3 | 28,842.00 | -2.53 |
| Offaly | 83,150 | 2.81 | 0 | 3,376 | 86,526 | 1 | 1/0/0 | 3 | 28,842.00 | -2.53 |
| Roscommon | 70,259 | 2.37 | 0 | 16,602 | 86,861 | 1 | 1/0/0 | 3 | 28,953.67 | -2.16 |
| Sligo | 70,198 | 2.37 | 0 | 16,328 | 86,526 | 1 | 1/0/0 | 3 | 28,842.00 | -2.53 |
| Tipperary | 167,895 | 5.67 | 0 | 5,995 | 173,890 | 2 | 2/0/0 | 6 | 28,981.67 | -2.06 |
| Waterford | 127,363 | 4.30 | 5,995 | 0 | 121,368 | 1 | 0/1/0 | 4 | 30,342.00 | 2.53 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 5,195 | 0 | 91,026 | 1 | 1/0/0 | 3 | 30,342.00 | 2.53 |
| Wexford | 163,919 | 5.54 | 0 | 9,133 | 173,052 | 2 | 2/0/0 | 6 | 28,842.00 | -2.53 |
| Wicklow | 155,851 | 5.27 | 9,133 | 0 | 146,718 | 1 | 0/0/1 | 5 | 29,343.60 | -0.84 |

Table 43: 13 Transfers (Total 161487)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|--------------------|
| Kildare | Carlow | 6,924 | 2.79 |
| Kilkenny | Carlow | 17,634 | 16.93 |
| Laois | Offaly | 3,376 | 3.67 |
| Louth | Monaghan | 21,238 | 15.20 |
| Meath | Cavan | 8,432 | 3.82 |
| Westmeath | Longford | 5,195 | 5.40 |
| Wicklow | Wexford | 9,133 | 5.86 |
| Clare | Galway | 10,683 | 8.35 |
| Kerry | Cork | 4,748 | 3.03 |
| Waterford | Tipperary | 5,995 | 4.71 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 16,602 | 12.03 |
| Donegal | Sligo | 16,328 | 9.77 |

Figure 15: Sol14 (174 seats, 45 constituencies, 13 transfers, 29,600.96 persons per TD, Δ_{max} 750 (2.53% of 29,592), weighted variation 1.37%)



3.15 Solution Sol15

Table 44: Solution 15

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol15 | 174 | 800 | 2.70 | 5.41 | 28,792.00 | 30,392.00 | 29,601.43 | 256,027.71 | 1.34 | 13 | 158,937 | 46 | 23/10/13 | 3.78 | Optimal | 49.46 | 0.0100 |

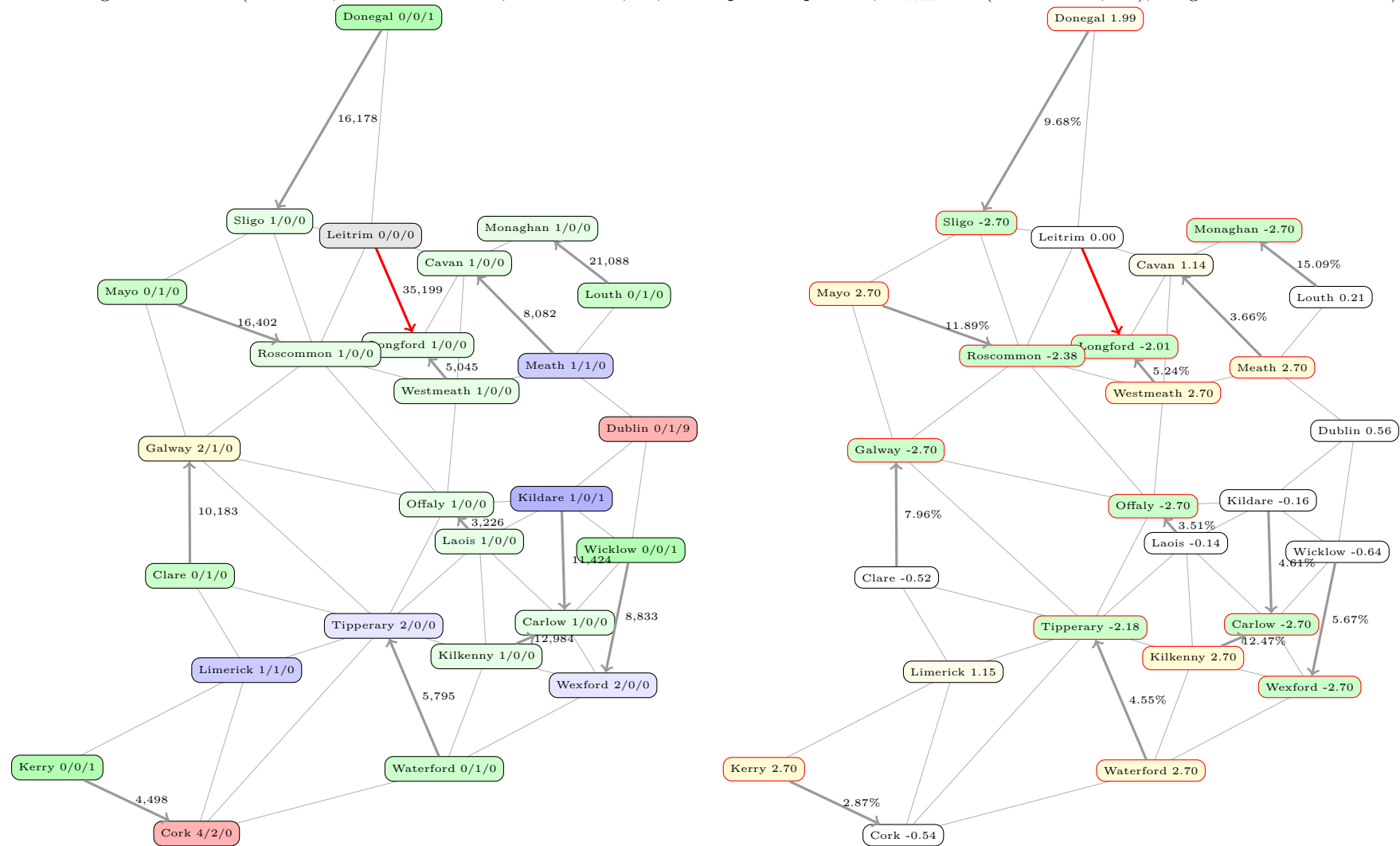
Table 45: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 24,408 | 86,376 | 1 | 1/0/0 | 3 | 28,792.00 | -2.70 |
| Cavan | 81,704 | 2.76 | 0 | 8,082 | 89,786 | 1 | 1/0/0 | 3 | 29,928.67 | 1.14 |
| Clare | 127,938 | 4.32 | 10,183 | 0 | 117,755 | 1 | 0/1/0 | 4 | 29,438.75 | -0.52 |
| Cork | 584,156 | 19.74 | 0 | 4,498 | 588,654 | 6 | 4/2/0 | 20 | 29,432.70 | -0.54 |
| Donegal | 167,084 | 5.65 | 16,178 | 0 | 150,906 | 1 | 0/0/1 | 5 | 30,181.20 | 1.99 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/1/9 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 10,183 | 287,920 | 3 | 2/1/0 | 10 | 28,792.00 | -2.70 |
| Kerry | 156,458 | 5.29 | 4,498 | 0 | 151,960 | 1 | 0/0/1 | 5 | 30,392.00 | 2.70 |
| Kildare | 247,774 | 8.37 | 11,424 | 0 | 236,350 | 2 | 1/0/1 | 8 | 29,543.75 | -0.16 |
| Kilkenny | 104,160 | 3.52 | 12,984 | 0 | 91,176 | 1 | 1/0/0 | 3 | 30,392.00 | 2.70 |
| Laois | 91,877 | 3.10 | 3,226 | 0 | 88,651 | 1 | 1/0/0 | 3 | 29,550.33 | -0.14 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 40,244 | 86,995 | 1 | 1/0/0 | 3 | 28,998.33 | -2.01 |
| Louth | 139,703 | 4.72 | 21,088 | 0 | 118,615 | 1 | 0/1/0 | 4 | 29,653.75 | 0.21 |
| Mayo | 137,970 | 4.66 | 16,402 | 0 | 121,568 | 1 | 0/1/0 | 4 | 30,392.00 | 2.70 |
| Meath | 220,826 | 7.46 | 8,082 | 0 | 212,744 | 2 | 1/1/0 | 7 | 30,392.00 | 2.70 |
| Monaghan | 65,288 | 2.21 | 0 | 21,088 | 86,376 | 1 | 1/0/0 | 3 | 28,792.00 | -2.70 |
| Offaly | 83,150 | 2.81 | 0 | 3,226 | 86,376 | 1 | 1/0/0 | 3 | 28,792.00 | -2.70 |
| Roscommon | 70,259 | 2.37 | 0 | 16,402 | 86,661 | 1 | 1/0/0 | 3 | 28,887.00 | -2.38 |
| Sligo | 70,198 | 2.37 | 0 | 16,178 | 86,376 | 1 | 1/0/0 | 3 | 28,792.00 | -2.70 |
| Tipperary | 167,895 | 5.67 | 0 | 5,795 | 173,690 | 2 | 2/0/0 | 6 | 28,948.33 | -2.18 |
| Waterford | 127,363 | 4.30 | 5,795 | 0 | 121,568 | 1 | 0/1/0 | 4 | 30,392.00 | 2.70 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 5,045 | 0 | 91,176 | 1 | 1/0/0 | 3 | 30,392.00 | 2.70 |
| Wexford | 163,919 | 5.54 | 0 | 8,833 | 172,752 | 2 | 2/0/0 | 6 | 28,792.00 | -2.70 |
| Wicklow | 155,851 | 5.27 | 8,833 | 0 | 147,018 | 1 | 0/0/1 | 5 | 29,403.60 | -0.64 |

| Table 46: 13 Transfers (Total 158937) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kildare | Carlow | 11,424 | 4.61 |
| Kilkenny | Carlow | 12,984 | 12.47 |
| Laois | Offaly | 3,226 | 3.51 |
| Louth | Monaghan | 21,088 | 15.09 |
| Meath | Cavan | 8,082 | 3.66 |
| Westmeath | Longford | 5,045 | 5.24 |
| Wicklow | Wexford | 8,833 | 5.67 |
| Clare | Galway | 10,183 | 7.96 |
| Kerry | Cork | 4,498 | 2.87 |
| Waterford | Tipperary | 5,795 | 4.55 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 16,402 | 11.89 |
| Donegal | Sligo | 16,178 | 9.68 |

Figure 16: Sol15 (174 seats, 46 constituencies, 13 transfers, 29,601.43 persons per TD, Δ_{max} 800 (2.70% of 29,592), weighted variation 1.34%)



3.16 Solution Sol16

Table 47: Solution 16

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol16 | 174 | 850 | 2.87 | 5.74 | 28,742.00 | 30,442.00 | 29,602.95 | 300,612.44 | 1.48 | 13 | 156,387 | 51 | 36/9/6 | 3.41 | Optimal | 38.97 | 0.0093 |

Table 48: Counties

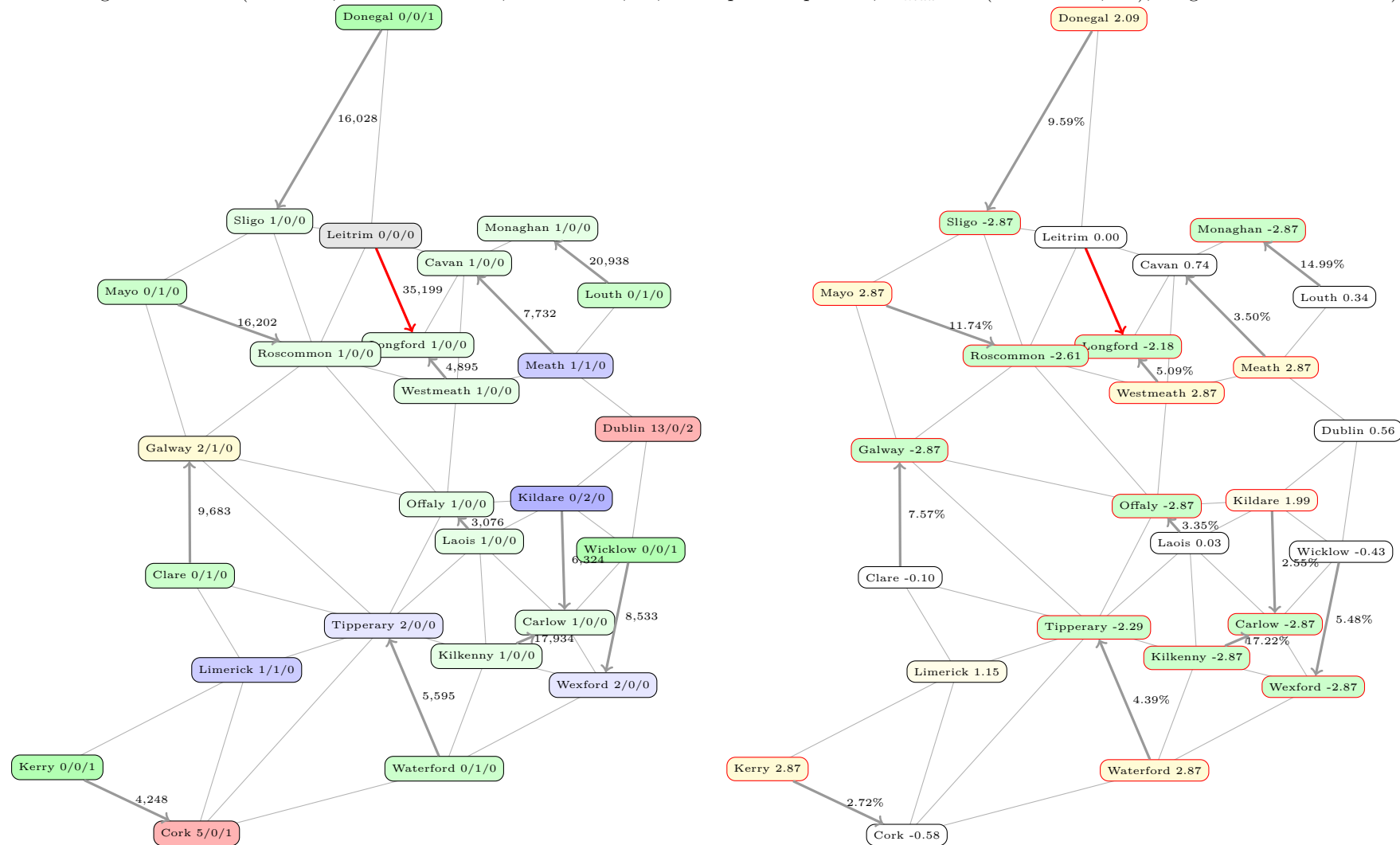
| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 24,258 | 86,226 | 1 | 1/0/0 | 3 | 28,742.00 | -2.87 |
| Cavan | 81,704 | 2.76 | 0 | 7,732 | 89,436 | 1 | 1/0/0 | 3 | 29,812.00 | 0.74 |
| Clare | 127,938 | 4.32 | 9,683 | 0 | 118,255 | 1 | 0/1/0 | 4 | 29,563.75 | -0.10 |
| Cork | 584,156 | 19.74 | 0 | 4,248 | 588,404 | 6 | 5/0/1 | 20 | 29,420.20 | -0.58 |
| Donegal | 167,084 | 5.65 | 16,028 | 0 | 151,056 | 1 | 0/0/1 | 5 | 30,211.20 | 2.09 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 15 | 13/0/2 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 9,683 | 287,420 | 3 | 2/1/0 | 10 | 28,742.00 | -2.87 |
| Kerry | 156,458 | 5.29 | 4,248 | 0 | 152,210 | 1 | 0/0/1 | 5 | 30,442.00 | 2.87 |
| Kildare | 247,774 | 8.37 | 6,324 | 0 | 241,450 | 2 | 0/2/0 | 8 | 30,181.25 | 1.99 |
| Kilkenny | 104,160 | 3.52 | 17,934 | 0 | 86,226 | 1 | 1/0/0 | 3 | 28,742.00 | -2.87 |
| Laois | 91,877 | 3.10 | 3,076 | 0 | 88,801 | 1 | 1/0/0 | 3 | 29,600.33 | 0.03 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 40,094 | 86,845 | 1 | 1/0/0 | 3 | 28,948.33 | -2.18 |
| Louth | 139,703 | 4.72 | 20,938 | 0 | 118,765 | 1 | 0/1/0 | 4 | 29,691.25 | 0.34 |
| Mayo | 137,970 | 4.66 | 16,202 | 0 | 121,768 | 1 | 0/1/0 | 4 | 30,442.00 | 2.87 |
| Meath | 220,826 | 7.46 | 7,732 | 0 | 213,094 | 2 | 1/1/0 | 7 | 30,442.00 | 2.87 |
| Monaghan | 65,288 | 2.21 | 0 | 20,938 | 86,226 | 1 | 1/0/0 | 3 | 28,742.00 | -2.87 |
| Offaly | 83,150 | 2.81 | 0 | 3,076 | 86,226 | 1 | 1/0/0 | 3 | 28,742.00 | -2.87 |
| Roscommon | 70,259 | 2.37 | 0 | 16,202 | 86,461 | 1 | 1/0/0 | 3 | 28,820.33 | -2.61 |
| Sligo | 70,198 | 2.37 | 0 | 16,028 | 86,226 | 1 | 1/0/0 | 3 | 28,742.00 | -2.87 |
| Tipperary | 167,895 | 5.67 | 0 | 5,595 | 173,490 | 2 | 2/0/0 | 6 | 28,915.00 | -2.29 |
| Waterford | 127,363 | 4.30 | 5,595 | 0 | 121,768 | 1 | 0/1/0 | 4 | 30,442.00 | 2.87 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 4,895 | 0 | 91,326 | 1 | 1/0/0 | 3 | 30,442.00 | 2.87 |
| Wexford | 163,919 | 5.54 | 0 | 8,533 | 172,452 | 2 | 2/0/0 | 6 | 28,742.00 | -2.87 |
| Wicklow | 155,851 | 5.27 | 8,533 | 0 | 147,318 | 1 | 0/0/1 | 5 | 29,463.60 | -0.43 |

Table 49: 13 Transfers (Total 156387)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Carlow | 6,324 | 2.55 |
| Kilkenny | Carlow | 17,934 | 17.22 |
| Laois | Offaly | 3,076 | 3.35 |
| Louth | Monaghan | 20,938 | 14.99 |
| Meath | Cavan | 7,732 | 3.50 |
| Westmeath | Longford | 4,895 | 5.09 |
| Wicklow | Wexford | 8,533 | 5.48 |
| Clare | Galway | 9,683 | 7.57 |
| Kerry | Cork | 4,248 | 2.72 |
| Waterford | Tipperary | 5,595 | 4.39 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 16,202 | 11.74 |
| Donegal | Sligo | 16,028 | 9.59 |

Figure 17: Sol16 (174 seats, 51 constituencies, 13 transfers, 29,602.95 persons per TD, Δ_{max} 850 (2.87% of 29,592), weighted variation 1.48%)



3.17 Solution Sol17

Table 50: Solution 17

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol17 | 174 | 900 | 3.04 | 6.08 | 28,692.00 | 30,492.00 | 29,604.13 | 335,251.49 | 1.55 | 13 | 153,837 | 51 | 36/9/6 | 3.41 | Optimal | 95.40 | 0.0098 |

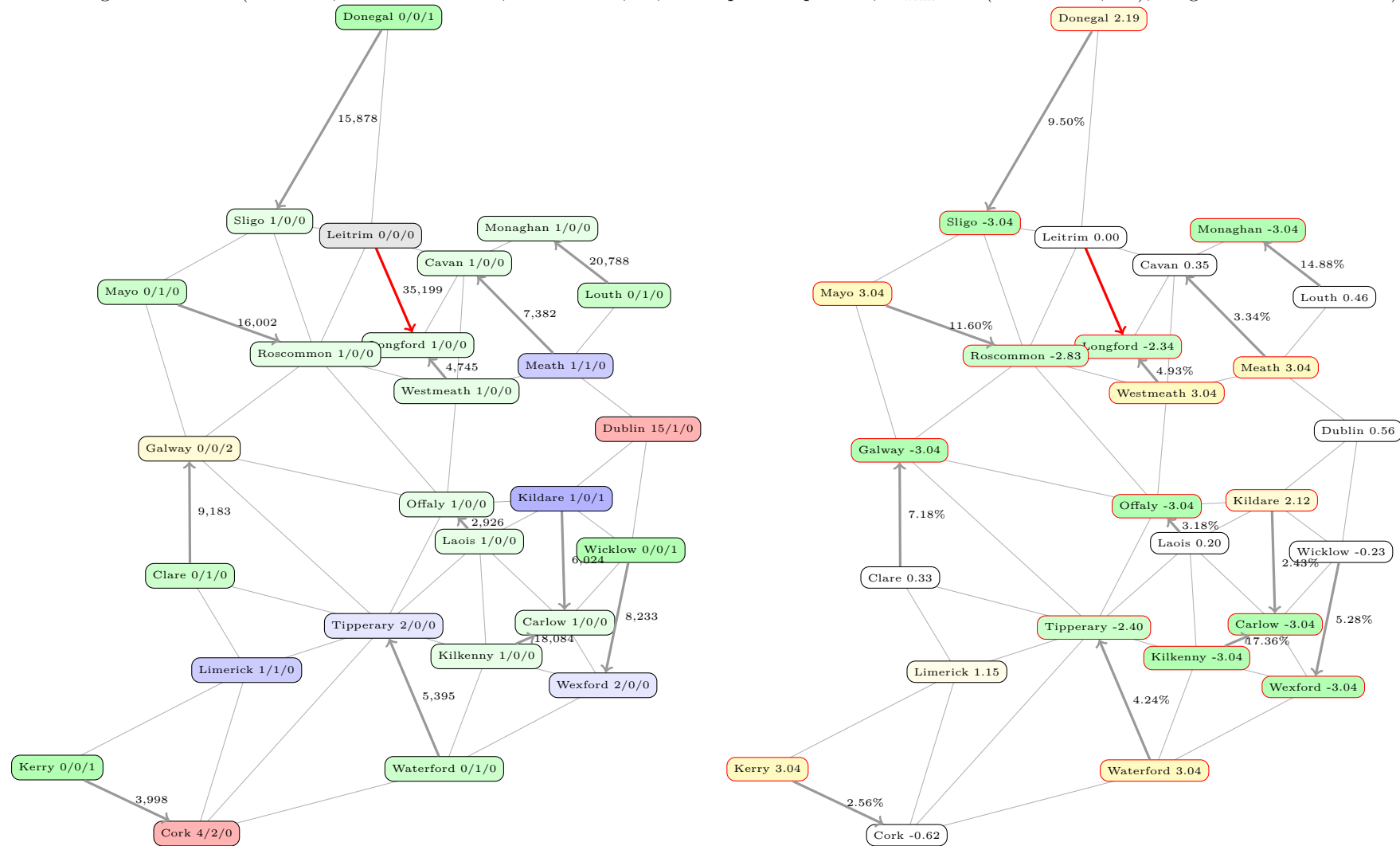
Table 51: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 24,108 | 86,076 | 1 | 1/0/0 | 3 | 28,692.00 | -3.04 |
| Cavan | 81,704 | 2.76 | 0 | 7,382 | 89,086 | 1 | 1/0/0 | 3 | 29,695.33 | 0.35 |
| Clare | 127,938 | 4.32 | 9,183 | 0 | 118,755 | 1 | 0/1/0 | 4 | 29,688.75 | 0.33 |
| Cork | 584,156 | 19.74 | 0 | 3,998 | 588,154 | 6 | 4/2/0 | 20 | 29,407.70 | -0.62 |
| Donegal | 167,084 | 5.65 | 15,878 | 0 | 151,206 | 1 | 0/0/1 | 5 | 30,241.20 | 2.19 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 9,183 | 286,920 | 2 | 0/0/2 | 10 | 28,692.00 | -3.04 |
| Kerry | 156,458 | 5.29 | 3,998 | 0 | 152,460 | 1 | 0/0/1 | 5 | 30,492.00 | 3.04 |
| Kildare | 247,774 | 8.37 | 6,024 | 0 | 241,750 | 2 | 1/0/1 | 8 | 30,218.75 | 2.12 |
| Kilkenny | 104,160 | 3.52 | 18,084 | 0 | 86,076 | 1 | 1/0/0 | 3 | 28,692.00 | -3.04 |
| Laois | 91,877 | 3.10 | 2,926 | 0 | 88,951 | 1 | 1/0/0 | 3 | 29,650.33 | 0.20 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 39,944 | 86,695 | 1 | 1/0/0 | 3 | 28,898.33 | -2.34 |
| Louth | 139,703 | 4.72 | 20,788 | 0 | 118,915 | 1 | 0/1/0 | 4 | 29,728.75 | 0.46 |
| Mayo | 137,970 | 4.66 | 16,002 | 0 | 121,968 | 1 | 0/1/0 | 4 | 30,492.00 | 3.04 |
| Meath | 220,826 | 7.46 | 7,382 | 0 | 213,444 | 2 | 1/1/0 | 7 | 30,492.00 | 3.04 |
| Monaghan | 65,288 | 2.21 | 0 | 20,788 | 86,076 | 1 | 1/0/0 | 3 | 28,692.00 | -3.04 |
| Offaly | 83,150 | 2.81 | 0 | 2,926 | 86,076 | 1 | 1/0/0 | 3 | 28,692.00 | -3.04 |
| Roscommon | 70,259 | 2.37 | 0 | 16,002 | 86,261 | 1 | 1/0/0 | 3 | 28,753.67 | -2.83 |
| Sligo | 70,198 | 2.37 | 0 | 15,878 | 86,076 | 1 | 1/0/0 | 3 | 28,692.00 | -3.04 |
| Tipperary | 167,895 | 5.67 | 0 | 5,395 | 173,290 | 2 | 2/0/0 | 6 | 28,881.67 | -2.40 |
| Waterford | 127,363 | 4.30 | 5,395 | 0 | 121,968 | 1 | 0/1/0 | 4 | 30,492.00 | 3.04 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 4,745 | 0 | 91,476 | 1 | 1/0/0 | 3 | 30,492.00 | 3.04 |
| Wexford | 163,919 | 5.54 | 0 | 8,233 | 172,152 | 2 | 2/0/0 | 6 | 28,692.00 | -3.04 |
| Wicklow | 155,851 | 5.27 | 8,233 | 0 | 147,618 | 1 | 0/0/1 | 5 | 29,523.60 | -0.23 |

| Table 52: 13 Transfers (Total 153837) | | | |
|---------------------------------------|-----------|--------|-----------------|
| From | To | Volume | Percent of From |
| Kildare | Carlow | 6,024 | 2.43 |
| Kilkenny | Carlow | 18,084 | 17.36 |
| Laois | Offaly | 2,926 | 3.18 |
| Louth | Monaghan | 20,788 | 14.88 |
| Meath | Cavan | 7,382 | 3.34 |
| Westmeath | Longford | 4,745 | 4.93 |
| Wicklow | Wexford | 8,233 | 5.28 |
| Clare | Galway | 9,183 | 7.18 |
| Kerry | Cork | 3,998 | 2.56 |
| Waterford | Tipperary | 5,395 | 4.24 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 16,002 | 11.60 |
| Donegal | Sligo | 15,878 | 9.50 |

Figure 18: Sol17 (174 seats, 51 constituencies, 13 transfers, 29,604.13 persons per TD, Δ_{max} 900 (3.04% of 29,592), weighted variation 1.55%)



3.18 Solution Sol18

Table 53: Solution 18

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol18 | 174 | 950 | 3.21 | 6.42 | 28,642.00 | 30,542.00 | 29,607.53 | 436,781.56 | 1.86 | 13 | 150,711 | 51 | 36/9/6 | 3.41 | Optimal | 125.52 | 0.0100 |

Table 54: Counties

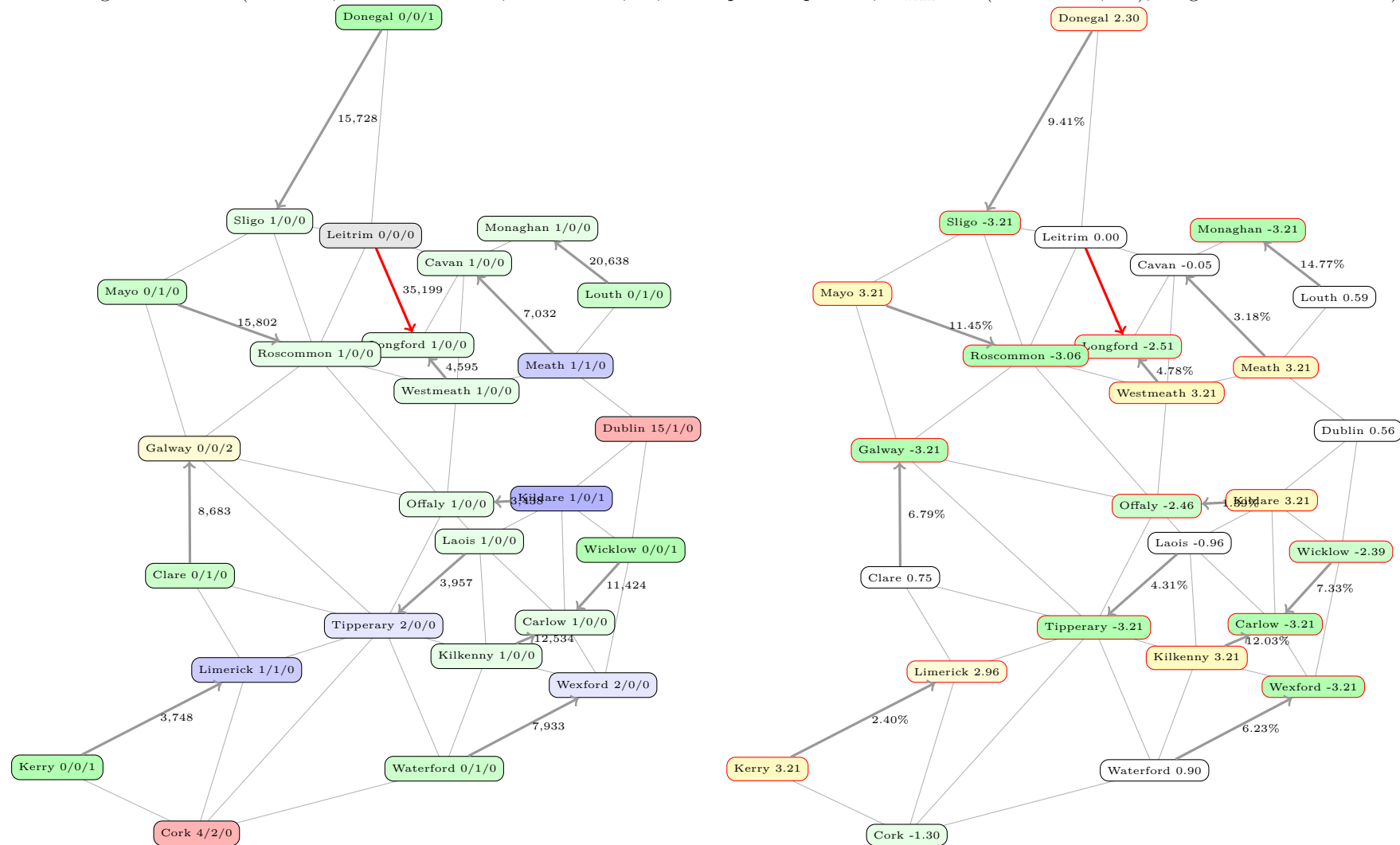
| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 23,958 | 85,926 | 1 | 1/0/0 | 3 | 28,642.00 | -3.21 |
| Cavan | 81,704 | 2.76 | 0 | 7,032 | 88,736 | 1 | 1/0/0 | 3 | 29,578.67 | -0.05 |
| Clare | 127,938 | 4.32 | 8,683 | 0 | 119,255 | 1 | 0/1/0 | 4 | 29,813.75 | 0.75 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 4/2/0 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 15,728 | 0 | 151,356 | 1 | 0/0/1 | 5 | 30,271.20 | 2.30 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 8,683 | 286,420 | 2 | 0/0/2 | 10 | 28,642.00 | -3.21 |
| Kerry | 156,458 | 5.29 | 3,748 | 0 | 152,710 | 1 | 0/0/1 | 5 | 30,542.00 | 3.21 |
| Kildare | 247,774 | 8.37 | 3,438 | 0 | 244,336 | 2 | 1/0/1 | 8 | 30,542.00 | 3.21 |
| Kilkenny | 104,160 | 3.52 | 12,534 | 0 | 91,626 | 1 | 1/0/0 | 3 | 30,542.00 | 3.21 |
| Laois | 91,877 | 3.10 | 3,957 | 0 | 87,920 | 1 | 1/0/0 | 3 | 29,306.67 | -0.96 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 3,748 | 213,284 | 2 | 1/1/0 | 7 | 30,469.14 | 2.96 |
| Longford | 46,751 | 1.58 | 0 | 39,794 | 86,545 | 1 | 1/0/0 | 3 | 28,848.33 | -2.51 |
| Louth | 139,703 | 4.72 | 20,638 | 0 | 119,065 | 1 | 0/1/0 | 4 | 29,766.25 | 0.59 |
| Mayo | 137,970 | 4.66 | 15,802 | 0 | 122,168 | 1 | 0/1/0 | 4 | 30,542.00 | 3.21 |
| Meath | 220,826 | 7.46 | 7,032 | 0 | 213,794 | 2 | 1/1/0 | 7 | 30,542.00 | 3.21 |
| Monaghan | 65,288 | 2.21 | 0 | 20,638 | 85,926 | 1 | 1/0/0 | 3 | 28,642.00 | -3.21 |
| Offaly | 83,150 | 2.81 | 0 | 3,438 | 86,588 | 1 | 1/0/0 | 3 | 28,862.67 | -2.46 |
| Roscommon | 70,259 | 2.37 | 0 | 15,802 | 86,061 | 1 | 1/0/0 | 3 | 28,687.00 | -3.06 |
| Sligo | 70,198 | 2.37 | 0 | 15,728 | 85,926 | 1 | 1/0/0 | 3 | 28,642.00 | -3.21 |
| Tipperary | 167,895 | 5.67 | 0 | 3,957 | 171,852 | 2 | 2/0/0 | 6 | 28,642.00 | -3.21 |
| Waterford | 127,363 | 4.30 | 7,933 | 0 | 119,430 | 1 | 0/1/0 | 4 | 29,857.50 | 0.90 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 4,595 | 0 | 91,626 | 1 | 1/0/0 | 3 | 30,542.00 | 3.21 |
| Wexford | 163,919 | 5.54 | 0 | 7,933 | 171,852 | 2 | 2/0/0 | 6 | 28,642.00 | -3.21 |
| Wicklow | 155,851 | 5.27 | 11,424 | 0 | 144,427 | 1 | 0/0/1 | 5 | 28,885.40 | -2.39 |

Table 55: 13 Transfers (Total 150711)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Offaly | 3,438 | 1.39 |
| Kilkenny | Carlow | 12,534 | 12.03 |
| Laois | Tipperary | 3,957 | 4.31 |
| Louth | Monaghan | 20,638 | 14.77 |
| Meath | Cavan | 7,032 | 3.18 |
| Westmeath | Longford | 4,595 | 4.78 |
| Wicklow | Carlow | 11,424 | 7.33 |
| Clare | Galway | 8,683 | 6.79 |
| Kerry | Limerick | 3,748 | 2.40 |
| Waterford | Wexford | 7,933 | 6.23 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 15,802 | 11.45 |
| Donegal | Sligo | 15,728 | 9.41 |

Figure 19: Sol18 (174 seats, 51 constituencies, 13 transfers, 29,607.53 persons per TD, Δ_{max} 950 (3.21% of 29,592), weighted variation 1.86%)



3.19 Solution Sol19

Table 56: Solution 19

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol19 | 174 | 1,000 | 3.38 | 6.76 | 28,592.00 | 30,592.00 | 29,608.72 | 470,879.87 | 1.92 | 13 | 147,811 | 51 | 36/9/6 | 3.41 | Optimal | 31.93 | 0.0099 |

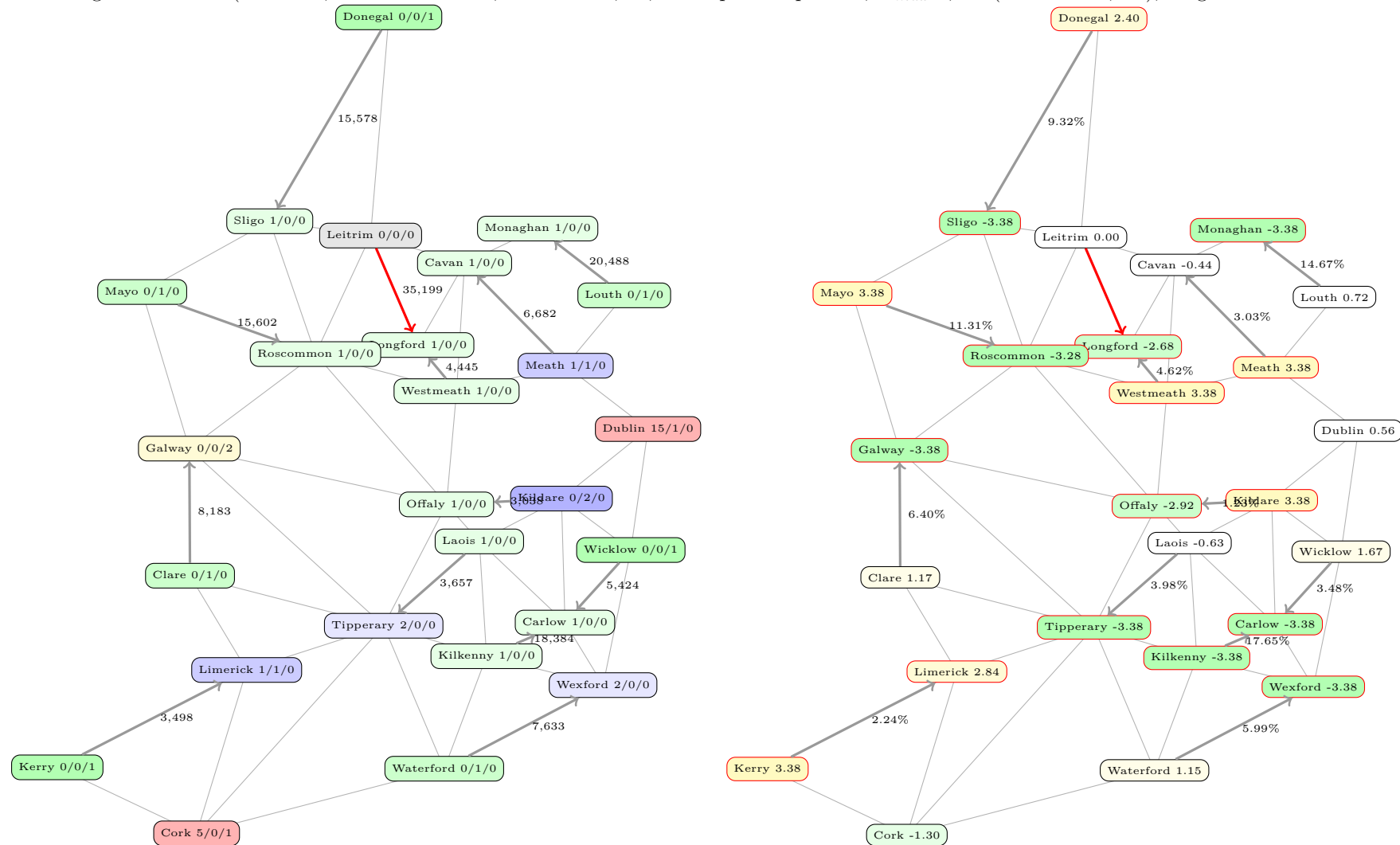
Table 57: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 23,808 | 85,776 | 1 | 1/0/0 | 3 | 28,592.00 | -3.38 |
| Cavan | 81,704 | 2.76 | 0 | 6,682 | 88,386 | 1 | 1/0/0 | 3 | 29,462.00 | -0.44 |
| Clare | 127,938 | 4.32 | 8,183 | 0 | 119,755 | 1 | 0/1/0 | 4 | 29,938.75 | 1.17 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/0/1 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 15,578 | 0 | 151,506 | 1 | 0/0/1 | 5 | 30,301.20 | 2.40 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 8,183 | 285,920 | 2 | 0/0/2 | 10 | 28,592.00 | -3.38 |
| Kerry | 156,458 | 5.29 | 3,498 | 0 | 152,960 | 1 | 0/0/1 | 5 | 30,592.00 | 3.38 |
| Kildare | 247,774 | 8.37 | 3,038 | 0 | 244,736 | 2 | 0/2/0 | 8 | 30,592.00 | 3.38 |
| Kilkenny | 104,160 | 3.52 | 18,384 | 0 | 85,776 | 1 | 1/0/0 | 3 | 28,592.00 | -3.38 |
| Laois | 91,877 | 3.10 | 3,657 | 0 | 88,220 | 1 | 1/0/0 | 3 | 29,406.67 | -0.63 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 3,498 | 213,034 | 2 | 1/1/0 | 7 | 30,433.43 | 2.84 |
| Longford | 46,751 | 1.58 | 0 | 39,644 | 86,395 | 1 | 1/0/0 | 3 | 28,798.33 | -2.68 |
| Louth | 139,703 | 4.72 | 20,488 | 0 | 119,215 | 1 | 0/1/0 | 4 | 29,803.75 | 0.72 |
| Mayo | 137,970 | 4.66 | 15,602 | 0 | 122,368 | 1 | 0/1/0 | 4 | 30,592.00 | 3.38 |
| Meath | 220,826 | 7.46 | 6,682 | 0 | 214,144 | 2 | 1/1/0 | 7 | 30,592.00 | 3.38 |
| Monaghan | 65,288 | 2.21 | 0 | 20,488 | 85,776 | 1 | 1/0/0 | 3 | 28,592.00 | -3.38 |
| Offaly | 83,150 | 2.81 | 0 | 3,038 | 86,188 | 1 | 1/0/0 | 3 | 28,729.33 | -2.92 |
| Roscommon | 70,259 | 2.37 | 0 | 15,602 | 85,861 | 1 | 1/0/0 | 3 | 28,620.33 | -3.28 |
| Sligo | 70,198 | 2.37 | 0 | 15,578 | 85,776 | 1 | 1/0/0 | 3 | 28,592.00 | -3.38 |
| Tipperary | 167,895 | 5.67 | 0 | 3,657 | 171,552 | 2 | 2/0/0 | 6 | 28,592.00 | -3.38 |
| Waterford | 127,363 | 4.30 | 7,633 | 0 | 119,730 | 1 | 0/1/0 | 4 | 29,932.50 | 1.15 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 4,445 | 0 | 91,776 | 1 | 1/0/0 | 3 | 30,592.00 | 3.38 |
| Wexford | 163,919 | 5.54 | 0 | 7,633 | 171,552 | 2 | 2/0/0 | 6 | 28,592.00 | -3.38 |
| Wicklow | 155,851 | 5.27 | 5,424 | 0 | 150,427 | 1 | 0/0/1 | 5 | 30,085.40 | 1.67 |

| Table 58: 13 Transfers (Total 147811) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kildare | Offaly | 3,038 | 1.23 |
| Kilkenny | Carlow | 18,384 | 17.65 |
| Laois | Tipperary | 3,657 | 3.98 |
| Louth | Monaghan | 20,488 | 14.67 |
| Meath | Cavan | 6,682 | 3.03 |
| Westmeath | Longford | 4,445 | 4.62 |
| Wicklow | Carlow | 5,424 | 3.48 |
| Clare | Galway | 8,183 | 6.40 |
| Kerry | Limerick | 3,498 | 2.24 |
| Waterford | Wexford | 7,633 | 5.99 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 15,602 | 11.31 |
| Donegal | Sligo | 15,578 | 9.32 |

Figure 20: Sol19 (174 seats, 51 constituencies, 13 transfers, 29,608.72 persons per TD, Δ_{max} 1,000 (3.38% of 29,592), weighted variation 1.92%)



3.20 Solution Sol20

Table 59: Solution 20

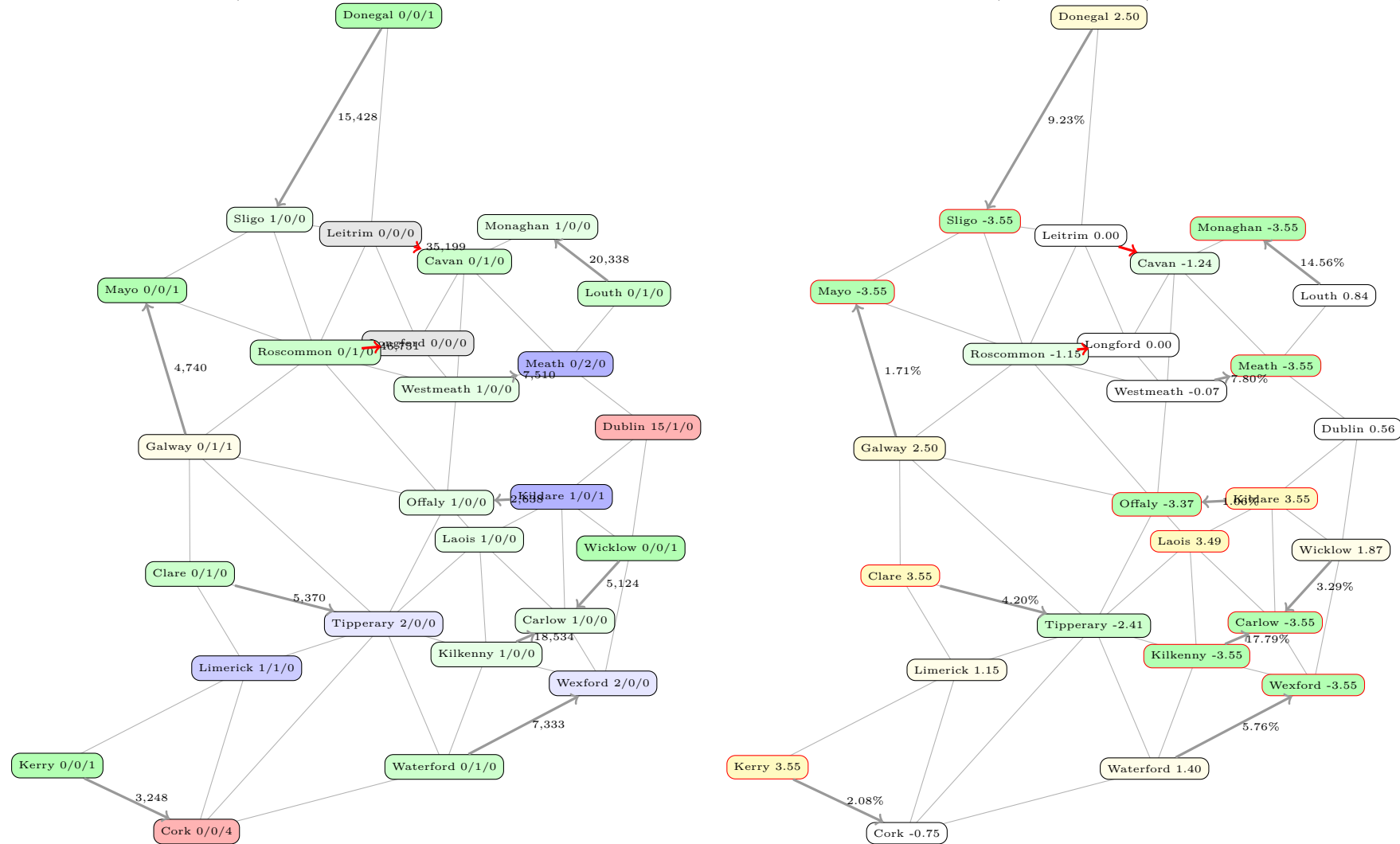
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol20 | 174 | 1,050 | 3.55 | 7.10 | 28,542.00 | 30,642.00 | 29,607.60 | 437,006.96 | 1.79 | 12 | 172,213 | 48 | 28/10/10 | 3.63 | Optimal | 2.06 | 0.0000 |

Table 60: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 23,658 | 85,626 | 1 | 1/0/0 | 3 | 28,542.00 | -3.55 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 5,370 | 0 | 122,568 | 1 | 0/1/0 | 4 | 30,642.00 | 3.55 |
| Cork | 584,156 | 19.74 | 0 | 3,248 | 587,404 | 4 | 0/0/4 | 20 | 29,370.20 | -0.75 |
| Donegal | 167,084 | 5.65 | 15,428 | 0 | 151,656 | 1 | 0/0/1 | 5 | 30,331.20 | 2.50 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 4,740 | 0 | 272,997 | 2 | 0/1/1 | 9 | 30,333.00 | 2.50 |
| Kerry | 156,458 | 5.29 | 3,248 | 0 | 153,210 | 1 | 0/0/1 | 5 | 30,642.00 | 3.55 |
| Kildare | 247,774 | 8.37 | 2,638 | 0 | 245,136 | 2 | 1/0/1 | 8 | 30,642.00 | 3.55 |
| Kilkenny | 104,160 | 3.52 | 18,534 | 0 | 85,626 | 1 | 1/0/0 | 3 | 28,542.00 | -3.55 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 20,338 | 0 | 119,365 | 1 | 0/1/0 | 4 | 29,841.25 | 0.84 |
| Mayo | 137,970 | 4.66 | 0 | 4,740 | 142,710 | 1 | 0/0/1 | 5 | 28,542.00 | -3.55 |
| Meath | 220,826 | 7.46 | 0 | 7,510 | 228,336 | 2 | 0/2/0 | 8 | 28,542.00 | -3.55 |
| Monaghan | 65,288 | 2.21 | 0 | 20,338 | 85,626 | 1 | 1/0/0 | 3 | 28,542.00 | -3.55 |
| Offaly | 83,150 | 2.81 | 0 | 2,638 | 85,788 | 1 | 1/0/0 | 3 | 28,596.00 | -3.37 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 15,428 | 85,626 | 1 | 1/0/0 | 3 | 28,542.00 | -3.55 |
| Tipperary | 167,895 | 5.67 | 0 | 5,370 | 173,265 | 2 | 2/0/0 | 6 | 28,877.50 | -2.41 |
| Waterford | 127,363 | 4.30 | 7,333 | 0 | 120,030 | 1 | 0/1/0 | 4 | 30,007.50 | 1.40 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 7,510 | 0 | 88,711 | 1 | 1/0/0 | 3 | 29,570.33 | -0.07 |
| Wexford | 163,919 | 5.54 | 0 | 7,333 | 171,252 | 2 | 2/0/0 | 6 | 28,542.00 | -3.55 |
| Wicklow | 155,851 | 5.27 | 5,124 | 0 | 150,727 | 1 | 0/0/1 | 5 | 30,145.40 | 1.87 |

| Table 61: 12 Transfers (Total 172213) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kildare | Offaly | 2,638 | 1.06 |
| Kilkenny | Carlow | 18,534 | 17.79 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 20,338 | 14.56 |
| Westmeath | Meath | 7,510 | 7.80 |
| Wicklow | Carlow | 5,124 | 3.29 |
| Clare | Tipperary | 5,370 | 4.20 |
| Kerry | Cork | 3,248 | 2.08 |
| Waterford | Wexford | 7,333 | 5.76 |
| Galway | Mayo | 4,740 | 1.71 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 15,428 | 9.23 |

Figure 21: Sol20 (174 seats, 48 constituencies, 12 transfers, 29,607.60 persons per TD, Δ_{max} 1,050 (3.55% of 29,592), weighted variation 1.79%)

3.21 Solution Sol21

Table 62: Solution 21

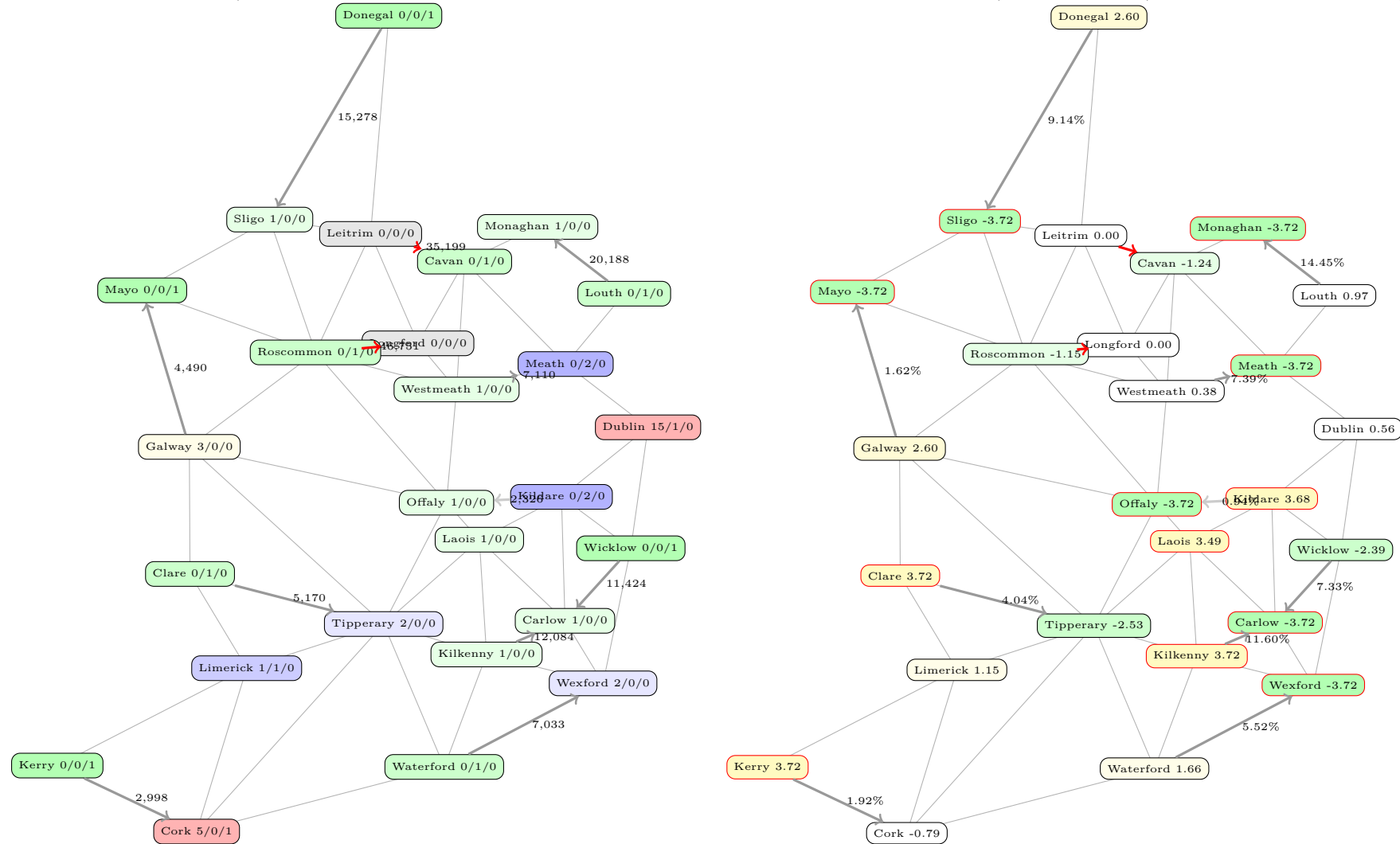
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol21 | 174 | 1,100 | 3.72 | 7.43 | 28,492.00 | 30,692.00 | 29,609.15 | 483,262.17 | 1.88 | 12 | 170,051 | 51 | 35/11/5 | 3.41 | Optimal | 2.96 | 0.0000 |

Table 63: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 23,508 | 85,476 | 1 | 1/0/0 | 3 | 28,492.00 | -3.72 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 5,170 | 0 | 122,768 | 1 | 0/1/0 | 4 | 30,692.00 | 3.72 |
| Cork | 584,156 | 19.74 | 0 | 2,998 | 587,154 | 6 | 5/0/1 | 20 | 29,357.70 | -0.79 |
| Donegal | 167,084 | 5.65 | 15,278 | 0 | 151,806 | 1 | 0/0/1 | 5 | 30,361.20 | 2.60 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 4,490 | 0 | 273,247 | 3 | 3/0/0 | 9 | 30,360.78 | 2.60 |
| Kerry | 156,458 | 5.29 | 2,998 | 0 | 153,460 | 1 | 0/0/1 | 5 | 30,692.00 | 3.72 |
| Kildare | 247,774 | 8.37 | 2,326 | 0 | 245,448 | 2 | 0/2/0 | 8 | 30,681.00 | 3.68 |
| Kilkenny | 104,160 | 3.52 | 12,084 | 0 | 92,076 | 1 | 1/0/0 | 3 | 30,692.00 | 3.72 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 20,188 | 0 | 119,515 | 1 | 0/1/0 | 4 | 29,878.75 | 0.97 |
| Mayo | 137,970 | 4.66 | 0 | 4,490 | 142,460 | 1 | 0/0/1 | 5 | 28,492.00 | -3.72 |
| Meath | 220,826 | 7.46 | 0 | 7,110 | 227,936 | 2 | 0/2/0 | 8 | 28,492.00 | -3.72 |
| Monaghan | 65,288 | 2.21 | 0 | 20,188 | 85,476 | 1 | 1/0/0 | 3 | 28,492.00 | -3.72 |
| Offaly | 83,150 | 2.81 | 0 | 2,326 | 85,476 | 1 | 1/0/0 | 3 | 28,492.00 | -3.72 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 15,278 | 85,476 | 1 | 1/0/0 | 3 | 28,492.00 | -3.72 |
| Tipperary | 167,895 | 5.67 | 0 | 5,170 | 173,065 | 2 | 2/0/0 | 6 | 28,844.17 | -2.53 |
| Waterford | 127,363 | 4.30 | 7,033 | 0 | 120,330 | 1 | 0/1/0 | 4 | 30,082.50 | 1.66 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 7,110 | 0 | 89,111 | 1 | 1/0/0 | 3 | 29,703.67 | 0.38 |
| Wexford | 163,919 | 5.54 | 0 | 7,033 | 170,952 | 2 | 2/0/0 | 6 | 28,492.00 | -3.72 |
| Wicklow | 155,851 | 5.27 | 11,424 | 0 | 144,427 | 1 | 0/0/1 | 5 | 28,885.40 | -2.39 |

| Table 64: 12 Transfers (Total 170051) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kildare | Offaly | 2,326 | 0.94 |
| Kilkenny | Carlow | 12,084 | 11.60 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 20,188 | 14.45 |
| Westmeath | Meath | 7,110 | 7.39 |
| Wicklow | Carlow | 11,424 | 7.33 |
| Clare | Tipperary | 5,170 | 4.04 |
| Kerry | Cork | 2,998 | 1.92 |
| Waterford | Wexford | 7,033 | 5.52 |
| Galway | Mayo | 4,490 | 1.62 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 15,278 | 9.14 |

Figure 22: Sol21 (174 seats, 51 constituencies, 12 transfers, 29,609.15 persons per TD, Δ_{max} 1,100 (3.72% of 29,592), weighted variation 1.88%)

3.22 Solution Sol22

Table 65: Solution 22

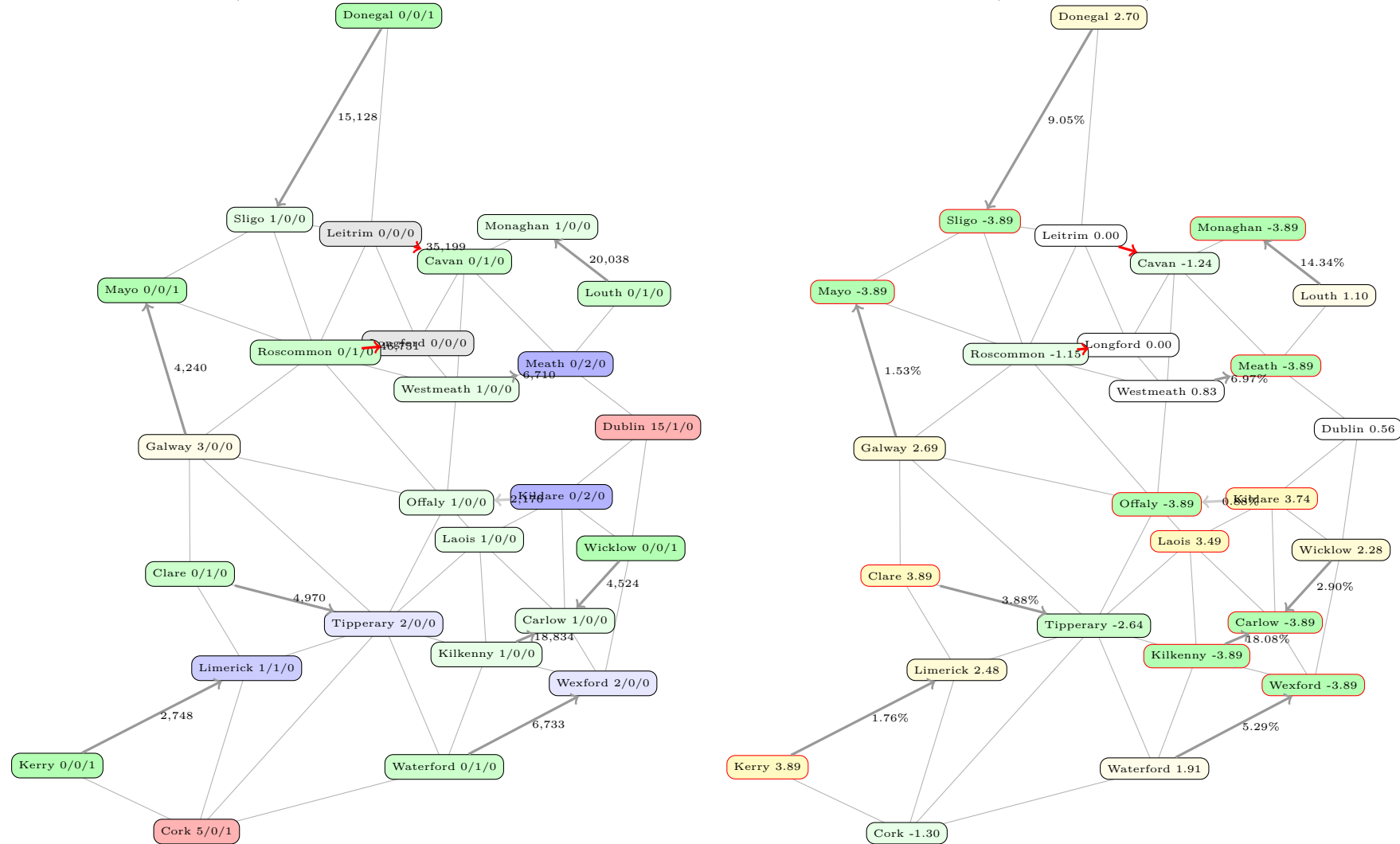
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol22 | 174 | 1,150 | 3.89 | 7.77 | 28,442.00 | 30,742.00 | 29,611.33 | 546,460.82 | 2.06 | 12 | 168,051 | 51 | 35/11/5 | 3.41 | Optimal | 3.77 | 0.0053 |

Table 66: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 23,358 | 85,326 | 1 | 1/0/0 | 3 | 28,442.00 | -3.89 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 4,970 | 0 | 122,968 | 1 | 0/1/0 | 4 | 30,742.00 | 3.89 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/0/1 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 15,128 | 0 | 151,956 | 1 | 0/0/1 | 5 | 30,391.20 | 2.70 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 4,240 | 0 | 273,497 | 3 | 3/0/0 | 9 | 30,388.56 | 2.69 |
| Kerry | 156,458 | 5.29 | 2,748 | 0 | 153,710 | 1 | 0/0/1 | 5 | 30,742.00 | 3.89 |
| Kildare | 247,774 | 8.37 | 2,176 | 0 | 245,598 | 2 | 0/2/0 | 8 | 30,699.75 | 3.74 |
| Kilkenny | 104,160 | 3.52 | 18,834 | 0 | 85,326 | 1 | 1/0/0 | 3 | 28,442.00 | -3.89 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 2,748 | 212,284 | 2 | 1/1/0 | 7 | 30,326.29 | 2.48 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 20,038 | 0 | 119,665 | 1 | 0/1/0 | 4 | 29,916.25 | 1.10 |
| Mayo | 137,970 | 4.66 | 0 | 4,240 | 142,210 | 1 | 0/0/1 | 5 | 28,442.00 | -3.89 |
| Meath | 220,826 | 7.46 | 0 | 6,710 | 227,536 | 2 | 0/2/0 | 8 | 28,442.00 | -3.89 |
| Monaghan | 65,288 | 2.21 | 0 | 20,038 | 85,326 | 1 | 1/0/0 | 3 | 28,442.00 | -3.89 |
| Offaly | 83,150 | 2.81 | 0 | 2,176 | 85,326 | 1 | 1/0/0 | 3 | 28,442.00 | -3.89 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 15,128 | 85,326 | 1 | 1/0/0 | 3 | 28,442.00 | -3.89 |
| Tipperary | 167,895 | 5.67 | 0 | 4,970 | 172,865 | 2 | 2/0/0 | 6 | 28,810.83 | -2.64 |
| Waterford | 127,363 | 4.30 | 6,733 | 0 | 120,630 | 1 | 0/1/0 | 4 | 30,157.50 | 1.91 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 6,710 | 0 | 89,511 | 1 | 1/0/0 | 3 | 29,837.00 | 0.83 |
| Wexford | 163,919 | 5.54 | 0 | 6,733 | 170,652 | 2 | 2/0/0 | 6 | 28,442.00 | -3.89 |
| Wicklow | 155,851 | 5.27 | 4,524 | 0 | 151,327 | 1 | 0/0/1 | 5 | 30,265.40 | 2.28 |

| Table 67: 12 Transfers (Total 168051) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kildare | Offaly | 2,176 | 0.88 |
| Kilkenny | Carlow | 18,834 | 18.08 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 20,038 | 14.34 |
| Westmeath | Meath | 6,710 | 6.97 |
| Wicklow | Carlow | 4,524 | 2.90 |
| Clare | Tipperary | 4,970 | 3.88 |
| Kerry | Limerick | 2,748 | 1.76 |
| Waterford | Wexford | 6,733 | 5.29 |
| Galway | Mayo | 4,240 | 1.53 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 15,128 | 9.05 |

Figure 23: Sol22 (174 seats, 51 constituencies, 12 transfers, 29,611.33 persons per TD, Δ_{max} 1,150 (3.89% of 29,592), weighted variation 2.06%)

3.23 Solution Sol23

Table 68: Solution 23

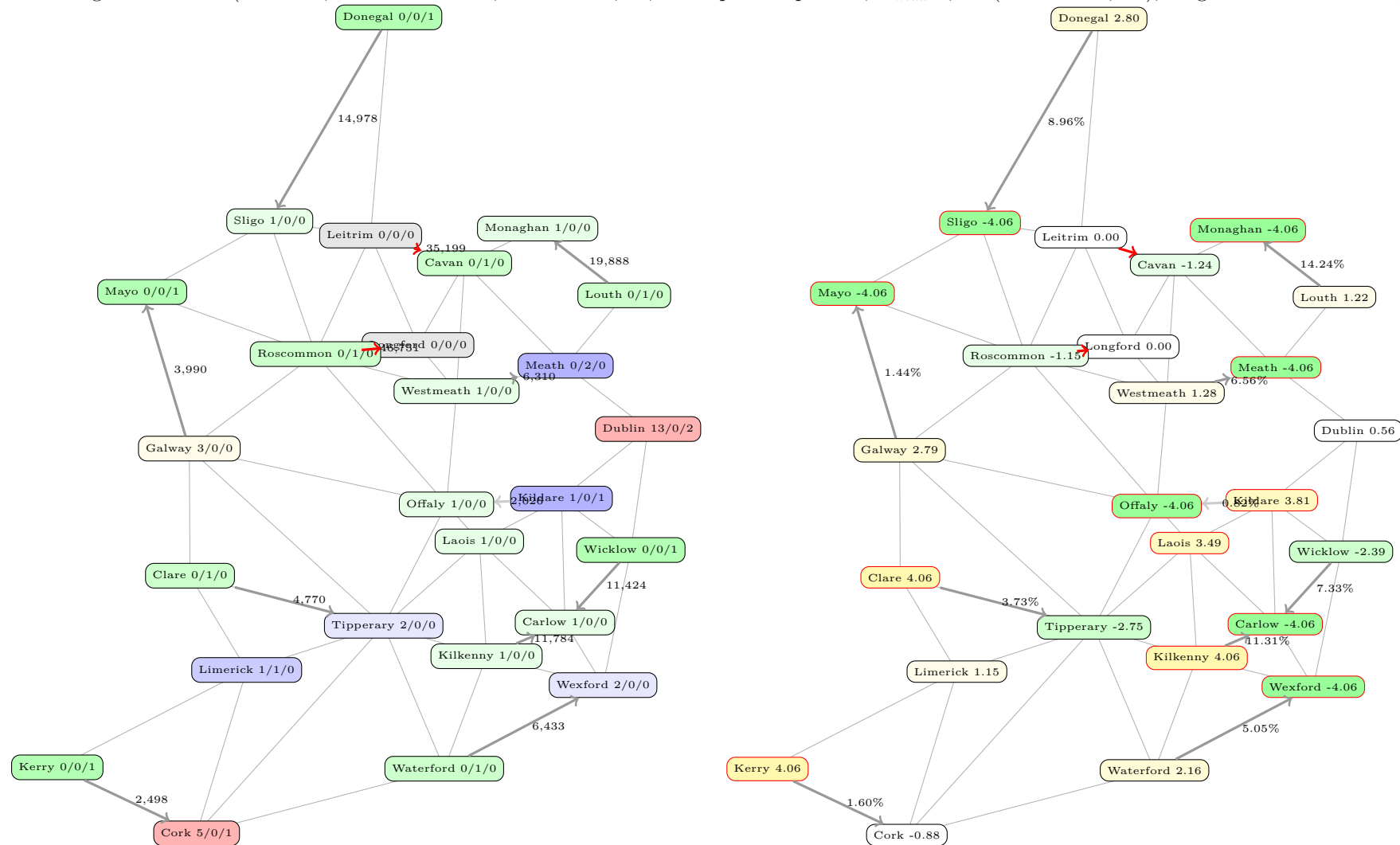
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol23 | 174 | 1,200 | 4.06 | 8.11 | 28,392.00 | 30,792.00 | 29,611.87 | 562,481.13 | 2.04 | 12 | 166,051 | 50 | 34/8/8 | 3.48 | Optimal | 4.06 | 0.0094 |

Table 69: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 23,208 | 85,176 | 1 | 1/0/0 | 3 | 28,392.00 | -4.06 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 4,770 | 0 | 123,168 | 1 | 0/1/0 | 4 | 30,792.00 | 4.06 |
| Cork | 584,156 | 19.74 | 0 | 2,498 | 586,654 | 6 | 5/0/1 | 20 | 29,332.70 | -0.88 |
| Donegal | 167,084 | 5.65 | 14,978 | 0 | 152,106 | 1 | 0/0/1 | 5 | 30,421.20 | 2.80 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 15 | 13/0/2 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 3,990 | 0 | 273,747 | 3 | 3/0/0 | 9 | 30,416.33 | 2.79 |
| Kerry | 156,458 | 5.29 | 2,498 | 0 | 153,960 | 1 | 0/0/1 | 5 | 30,792.00 | 4.06 |
| Kildare | 247,774 | 8.37 | 2,026 | 0 | 245,748 | 2 | 1/0/1 | 8 | 30,718.50 | 3.81 |
| Kilkenny | 104,160 | 3.52 | 11,784 | 0 | 92,376 | 1 | 1/0/0 | 3 | 30,792.00 | 4.06 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 19,888 | 0 | 119,815 | 1 | 0/1/0 | 4 | 29,953.75 | 1.22 |
| Mayo | 137,970 | 4.66 | 0 | 3,990 | 141,960 | 1 | 0/0/1 | 5 | 28,392.00 | -4.06 |
| Meath | 220,826 | 7.46 | 0 | 6,310 | 227,136 | 2 | 0/2/0 | 8 | 28,392.00 | -4.06 |
| Monaghan | 65,288 | 2.21 | 0 | 19,888 | 85,176 | 1 | 1/0/0 | 3 | 28,392.00 | -4.06 |
| Offaly | 83,150 | 2.81 | 0 | 2,026 | 85,176 | 1 | 1/0/0 | 3 | 28,392.00 | -4.06 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 14,978 | 85,176 | 1 | 1/0/0 | 3 | 28,392.00 | -4.06 |
| Tipperary | 167,895 | 5.67 | 0 | 4,770 | 172,665 | 2 | 2/0/0 | 6 | 28,777.50 | -2.75 |
| Waterford | 127,363 | 4.30 | 6,433 | 0 | 120,930 | 1 | 0/1/0 | 4 | 30,232.50 | 2.16 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 6,310 | 0 | 89,911 | 1 | 1/0/0 | 3 | 29,970.33 | 1.28 |
| Wexford | 163,919 | 5.54 | 0 | 6,433 | 170,352 | 2 | 2/0/0 | 6 | 28,392.00 | -4.06 |
| Wicklow | 155,851 | 5.27 | 11,424 | 0 | 144,427 | 1 | 0/0/1 | 5 | 28,885.40 | -2.39 |

| Table 70: 12 Transfers (Total 166051) | | | |
|---------------------------------------|-----------|--------|-----------------|
| From | To | Volume | Percent of From |
| Kildare | Offaly | 2,026 | 0.82 |
| Kilkenny | Carlow | 11,784 | 11.31 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 19,888 | 14.24 |
| Westmeath | Meath | 6,310 | 6.56 |
| Wicklow | Carlow | 11,424 | 7.33 |
| Clare | Tipperary | 4,770 | 3.73 |
| Kerry | Cork | 2,498 | 1.60 |
| Waterford | Wexford | 6,433 | 5.05 |
| Galway | Mayo | 3,990 | 1.44 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 14,978 | 8.96 |

Figure 24: Sol23 (174 seats, 50 constituencies, 12 transfers, 29,611.87 persons per TD, Δ_{max} 1,200 (4.06% of 29,592), weighted variation 2.04%)

3.24 Solution Sol24

Table 71: Solution 24

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol24 | 174 | 1,250 | 4.22 | 8.45 | 28,342.00 | 30,842.00 | 29,619.93 | 805,409.62 | 2.75 | 12 | 164,051 | 51 | 36/9/6 | 3.41 | Optimal | 3.06 | 0.0037 |

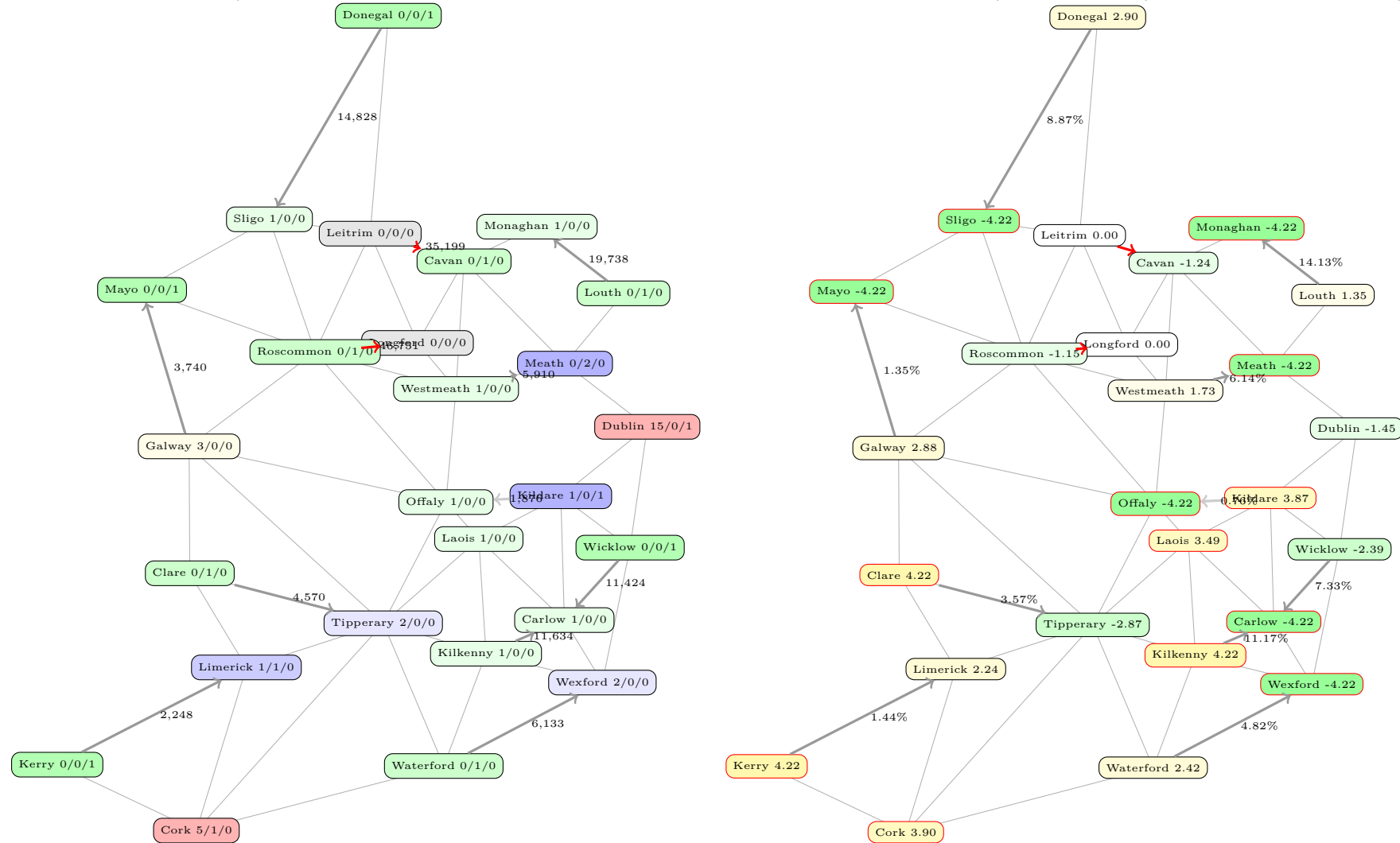
Table 72: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 23,058 | 85,026 | 1 | 1/0/0 | 3 | 28,342.00 | -4.22 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 4,570 | 0 | 123,368 | 1 | 0/1/0 | 4 | 30,842.00 | 4.22 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/1/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 14,828 | 0 | 152,256 | 1 | 0/0/1 | 5 | 30,451.20 | 2.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/0/1 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 3,740 | 0 | 273,997 | 3 | 3/0/0 | 9 | 30,444.11 | 2.88 |
| Kerry | 156,458 | 5.29 | 2,248 | 0 | 154,210 | 1 | 0/0/1 | 5 | 30,842.00 | 4.22 |
| Kildare | 247,774 | 8.37 | 1,876 | 0 | 245,898 | 2 | 1/0/1 | 8 | 30,737.25 | 3.87 |
| Kilkenny | 104,160 | 3.52 | 11,634 | 0 | 92,526 | 1 | 1/0/0 | 3 | 30,842.00 | 4.22 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 2,248 | 211,784 | 2 | 1/1/0 | 7 | 30,254.86 | 2.24 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 19,738 | 0 | 119,965 | 1 | 0/1/0 | 4 | 29,991.25 | 1.35 |
| Mayo | 137,970 | 4.66 | 0 | 3,740 | 141,710 | 1 | 0/0/1 | 5 | 28,342.00 | -4.22 |
| Meath | 220,826 | 7.46 | 0 | 5,910 | 226,736 | 2 | 0/2/0 | 8 | 28,342.00 | -4.22 |
| Monaghan | 65,288 | 2.21 | 0 | 19,738 | 85,026 | 1 | 1/0/0 | 3 | 28,342.00 | -4.22 |
| Offaly | 83,150 | 2.81 | 0 | 1,876 | 85,026 | 1 | 1/0/0 | 3 | 28,342.00 | -4.22 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 14,828 | 85,026 | 1 | 1/0/0 | 3 | 28,342.00 | -4.22 |
| Tipperary | 167,895 | 5.67 | 0 | 4,570 | 172,465 | 2 | 2/0/0 | 6 | 28,744.17 | -2.87 |
| Waterford | 127,363 | 4.30 | 6,133 | 0 | 121,230 | 1 | 0/1/0 | 4 | 30,307.50 | 2.42 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 5,910 | 0 | 90,311 | 1 | 1/0/0 | 3 | 30,103.67 | 1.73 |
| Wexford | 163,919 | 5.54 | 0 | 6,133 | 170,052 | 2 | 2/0/0 | 6 | 28,342.00 | -4.22 |
| Wicklow | 155,851 | 5.27 | 11,424 | 0 | 144,427 | 1 | 0/0/1 | 5 | 28,885.40 | -2.39 |

Table 73: 12 Transfers (Total 164051)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|--------------------|
| Kildare | Offaly | 1,876 | 0.76 |
| Kilkenny | Carlow | 11,634 | 11.17 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 19,738 | 14.13 |
| Westmeath | Meath | 5,910 | 6.14 |
| Wicklow | Carlow | 11,424 | 7.33 |
| Clare | Tipperary | 4,570 | 3.57 |
| Kerry | Limerick | 2,248 | 1.44 |
| Waterford | Wexford | 6,133 | 4.82 |
| Galway | Mayo | 3,740 | 1.35 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Donegal | Sligo | 14,828 | 8.87 |

Figure 25: Sol24 (174 seats, 51 constituencies, 12 transfers, 29,619.93 persons per TD, Δ_{max} 1,250 (4.22% of 29,592), weighted variation 2.75%)

3.25 Solution Sol25

Table 74: Solution 25

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol25 | 174 | 1,300 | 4.39 | 8.79 | 28,292.00 | 30,892.00 | 29,633.64 | 1,211,541.06 | 3.59 | 12 | 129,044 | 50 | 33/10/7 | 3.48 | Optimal | 26.85 | 0.0047 |

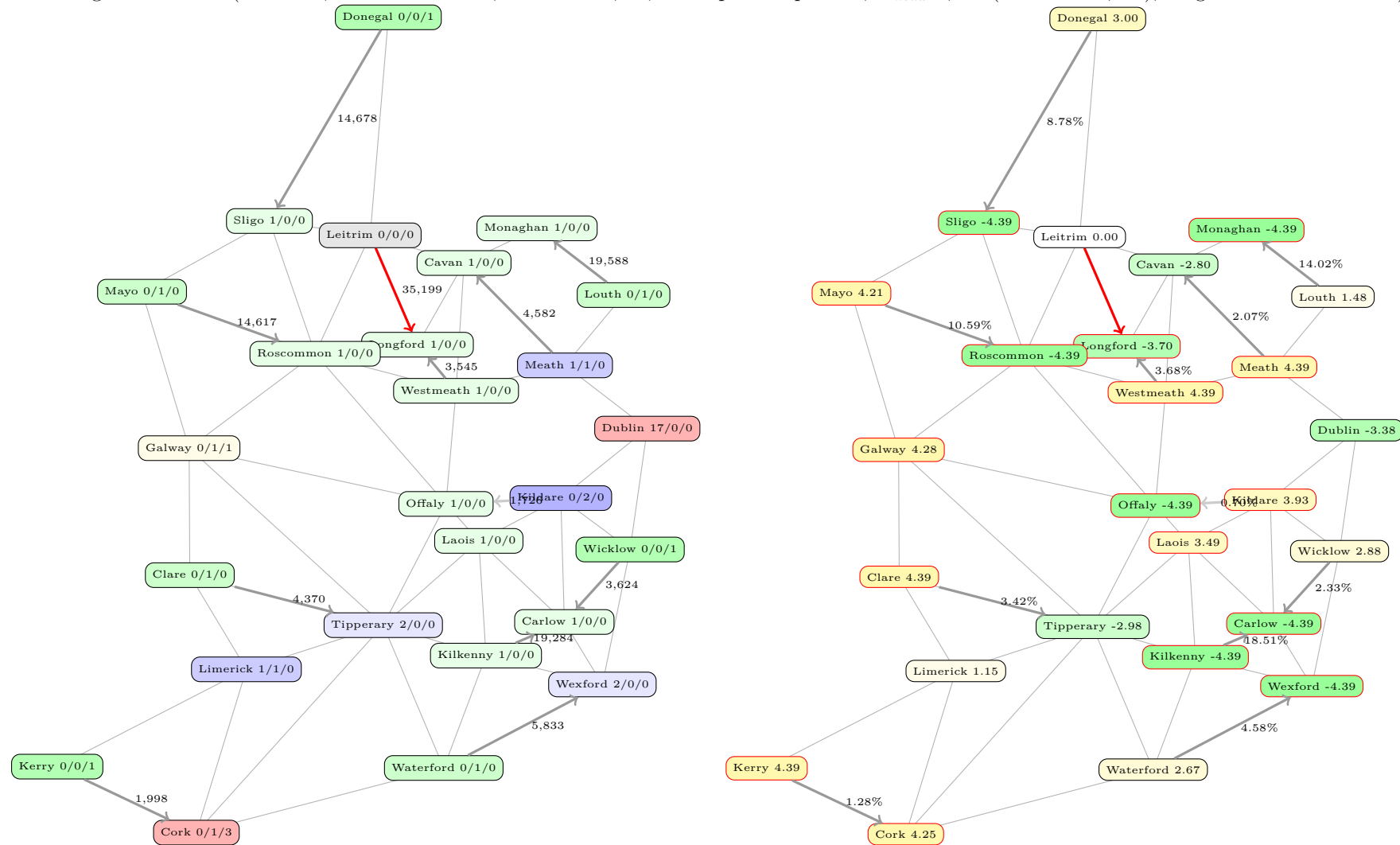
Table 75: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 22,908 | 84,876 | 1 | 1/0/0 | 3 | 28,292.00 | -4.39 |
| Cavan | 81,704 | 2.76 | 0 | 4,582 | 86,286 | 1 | 1/0/0 | 3 | 28,762.00 | -2.80 |
| Clare | 127,938 | 4.32 | 4,370 | 0 | 123,568 | 1 | 0/1/0 | 4 | 30,892.00 | 4.39 |
| Cork | 584,156 | 19.74 | 0 | 1,998 | 586,154 | 4 | 0/1/3 | 19 | 30,850.21 | 4.25 |
| Donegal | 167,084 | 5.65 | 14,678 | 0 | 152,406 | 1 | 0/0/1 | 5 | 30,481.20 | 3.00 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 17 | 17/0/0 | 51 | 28,591.25 | -3.38 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 2 | 0/1/1 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 1,998 | 0 | 154,460 | 1 | 0/0/1 | 5 | 30,892.00 | 4.39 |
| Kildare | 247,774 | 8.37 | 1,726 | 0 | 246,048 | 2 | 0/2/0 | 8 | 30,756.00 | 3.93 |
| Kilkenny | 104,160 | 3.52 | 19,284 | 0 | 84,876 | 1 | 1/0/0 | 3 | 28,292.00 | -4.39 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 38,744 | 85,495 | 1 | 1/0/0 | 3 | 28,498.33 | -3.70 |
| Louth | 139,703 | 4.72 | 19,588 | 0 | 120,115 | 1 | 0/1/0 | 4 | 30,028.75 | 1.48 |
| Mayo | 137,970 | 4.66 | 14,617 | 0 | 123,353 | 1 | 0/1/0 | 4 | 30,838.25 | 4.21 |
| Meath | 220,826 | 7.46 | 4,582 | 0 | 216,244 | 2 | 1/1/0 | 7 | 30,892.00 | 4.39 |
| Monaghan | 65,288 | 2.21 | 0 | 19,588 | 84,876 | 1 | 1/0/0 | 3 | 28,292.00 | -4.39 |
| Offaly | 83,150 | 2.81 | 0 | 1,726 | 84,876 | 1 | 1/0/0 | 3 | 28,292.00 | -4.39 |
| Roscommon | 70,259 | 2.37 | 0 | 14,617 | 84,876 | 1 | 1/0/0 | 3 | 28,292.00 | -4.39 |
| Sligo | 70,198 | 2.37 | 0 | 14,678 | 84,876 | 1 | 1/0/0 | 3 | 28,292.00 | -4.39 |
| Tipperary | 167,895 | 5.67 | 0 | 4,370 | 172,265 | 2 | 2/0/0 | 6 | 28,710.83 | -2.98 |
| Waterford | 127,363 | 4.30 | 5,833 | 0 | 121,530 | 1 | 0/1/0 | 4 | 30,382.50 | 2.67 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 3,545 | 0 | 92,676 | 1 | 1/0/0 | 3 | 30,892.00 | 4.39 |
| Wexford | 163,919 | 5.54 | 0 | 5,833 | 169,752 | 2 | 2/0/0 | 6 | 28,292.00 | -4.39 |
| Wicklow | 155,851 | 5.27 | 3,624 | 0 | 152,227 | 1 | 0/0/1 | 5 | 30,445.40 | 2.88 |

| Table 76: 12 Transfers (Total 129044) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kildare | Offaly | 1,726 | 0.70 |
| Kilkenny | Carlow | 19,284 | 18.51 |
| Louth | Monaghan | 19,588 | 14.02 |
| Meath | Cavan | 4,582 | 2.07 |
| Westmeath | Longford | 3,545 | 3.68 |
| Wicklow | Carlow | 3,624 | 2.33 |
| Clare | Tipperary | 4,370 | 3.42 |
| Kerry | Cork | 1,998 | 1.28 |
| Waterford | Wexford | 5,833 | 4.58 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 14,617 | 10.59 |
| Donegal | Sligo | 14,678 | 8.78 |

Figure 26: Sol25 (174 seats, 50 constituencies, 12 transfers, 29,633.64 persons per TD, Δ_{max} 1,300 (4.39% of 29,592), weighted variation 3.59%)



3.26 Solution Sol26

Table 77: Solution 26

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol26 | 174 | 1,350 | 4.56 | 9.12 | 28,242.00 | 30,942.00 | 29,635.30 | 1,260,320.32 | 3.66 | 12 | 127,044 | 48 | 23/20/5 | 3.63 | Optimal | 11.87 | 0.0094 |

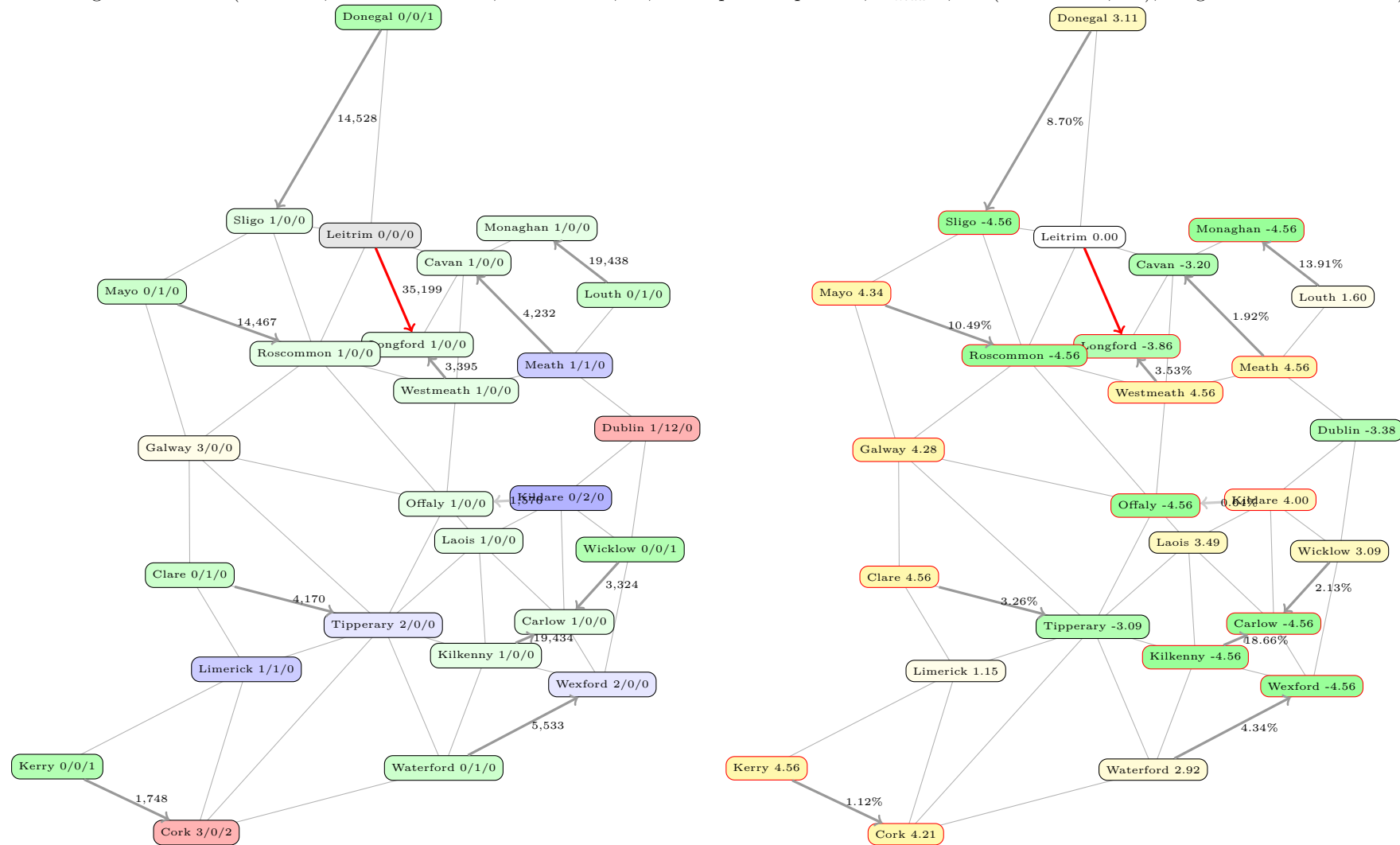
Table 78: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 22,758 | 84,726 | 1 | 1/0/0 | 3 | 28,242.00 | -4.56 |
| Cavan | 81,704 | 2.76 | 0 | 4,232 | 85,936 | 1 | 1/0/0 | 3 | 28,645.33 | -3.20 |
| Clare | 127,938 | 4.32 | 4,170 | 0 | 123,768 | 1 | 0/1/0 | 4 | 30,942.00 | 4.56 |
| Cork | 584,156 | 19.74 | 0 | 1,748 | 585,904 | 5 | 3/0/2 | 19 | 30,837.05 | 4.21 |
| Donegal | 167,084 | 5.65 | 14,528 | 0 | 152,556 | 1 | 0/0/1 | 5 | 30,511.20 | 3.11 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 13 | 1/12/0 | 51 | 28,591.25 | -3.38 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 1,748 | 0 | 154,710 | 1 | 0/0/1 | 5 | 30,942.00 | 4.56 |
| Kildare | 247,774 | 8.37 | 1,576 | 0 | 246,198 | 2 | 0/2/0 | 8 | 30,774.75 | 4.00 |
| Kilkenny | 104,160 | 3.52 | 19,434 | 0 | 84,726 | 1 | 1/0/0 | 3 | 28,242.00 | -4.56 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 38,594 | 85,345 | 1 | 1/0/0 | 3 | 28,448.33 | -3.86 |
| Louth | 139,703 | 4.72 | 19,438 | 0 | 120,265 | 1 | 0/1/0 | 4 | 30,066.25 | 1.60 |
| Mayo | 137,970 | 4.66 | 14,467 | 0 | 123,503 | 1 | 0/1/0 | 4 | 30,875.75 | 4.34 |
| Meath | 220,826 | 7.46 | 4,232 | 0 | 216,594 | 2 | 1/1/0 | 7 | 30,942.00 | 4.56 |
| Monaghan | 65,288 | 2.21 | 0 | 19,438 | 84,726 | 1 | 1/0/0 | 3 | 28,242.00 | -4.56 |
| Offaly | 83,150 | 2.81 | 0 | 1,576 | 84,726 | 1 | 1/0/0 | 3 | 28,242.00 | -4.56 |
| Roscommon | 70,259 | 2.37 | 0 | 14,467 | 84,726 | 1 | 1/0/0 | 3 | 28,242.00 | -4.56 |
| Sligo | 70,198 | 2.37 | 0 | 14,528 | 84,726 | 1 | 1/0/0 | 3 | 28,242.00 | -4.56 |
| Tipperary | 167,895 | 5.67 | 0 | 4,170 | 172,065 | 2 | 2/0/0 | 6 | 28,677.50 | -3.09 |
| Waterford | 127,363 | 4.30 | 5,533 | 0 | 121,830 | 1 | 0/1/0 | 4 | 30,457.50 | 2.92 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 3,395 | 0 | 92,826 | 1 | 1/0/0 | 3 | 30,942.00 | 4.56 |
| Wexford | 163,919 | 5.54 | 0 | 5,533 | 169,452 | 2 | 2/0/0 | 6 | 28,242.00 | -4.56 |
| Wicklow | 155,851 | 5.27 | 3,324 | 0 | 152,527 | 1 | 0/0/1 | 5 | 30,505.40 | 3.09 |

Table 79: 12 Transfers (Total 127044)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kildare | Offaly | 1,576 | 0.64 |
| Kilkenny | Carlow | 19,434 | 18.66 |
| Louth | Monaghan | 19,438 | 13.91 |
| Meath | Cavan | 4,232 | 1.92 |
| Westmeath | Longford | 3,395 | 3.53 |
| Wicklow | Carlow | 3,324 | 2.13 |
| Clare | Tipperary | 4,170 | 3.26 |
| Kerry | Cork | 1,748 | 1.12 |
| Waterford | Wexford | 5,533 | 4.34 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Roscommon | 14,467 | 10.49 |
| Donegal | Sligo | 14,528 | 8.70 |

Figure 27: Sol26 (174 seats, 48 constituencies, 12 transfers, 29,635.30 persons per TD, Δ_{max} 1,350 (4.56% of 29,592), weighted variation 3.66%)

3.27 Solution Sol27

Table 80: Solution 27

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol27 | 174 | 1,400 | 4.73 | 9.46 | 28,192.00 | 30,992.00 | 29,621.50 | 858,591.03 | 2.71 | 11 | 156,052 | 52 | 39/8/5 | 3.35 | Optimal | 1.49 | 0.0000 |

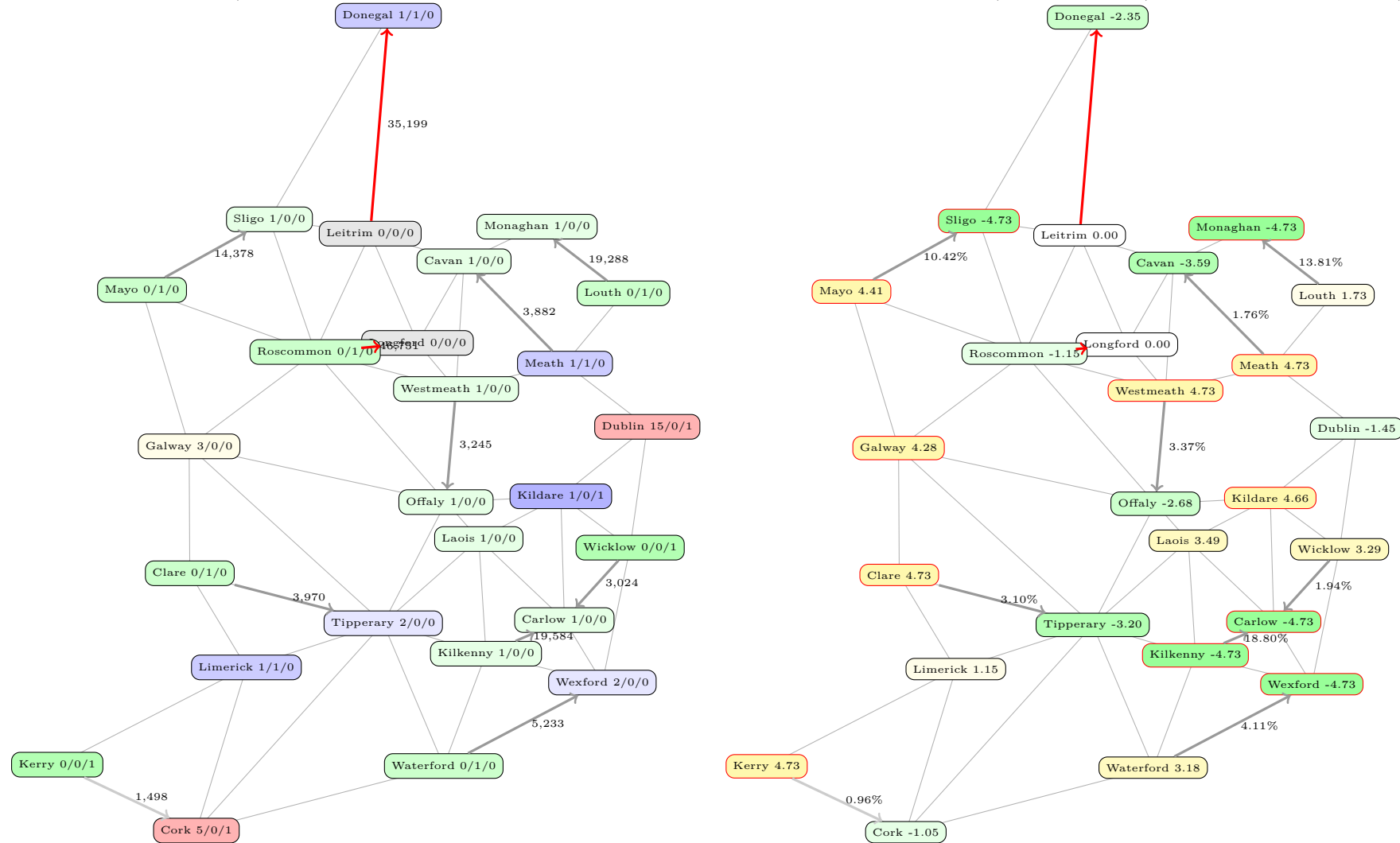
Table 81: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 22,608 | 84,576 | 1 | 1/0/0 | 3 | 28,192.00 | -4.73 |
| Cavan | 81,704 | 2.76 | 0 | 3,882 | 85,586 | 1 | 1/0/0 | 3 | 28,528.67 | -3.59 |
| Clare | 127,938 | 4.32 | 3,970 | 0 | 123,968 | 1 | 0/1/0 | 4 | 30,992.00 | 4.73 |
| Cork | 584,156 | 19.74 | 0 | 1,498 | 585,654 | 6 | 5/0/1 | 20 | 29,282.70 | -1.05 |
| Donegal | 167,084 | 5.65 | 0 | 35,199 | 202,283 | 2 | 1/1/0 | 7 | 28,897.57 | -2.35 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/0/1 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 1,498 | 0 | 154,960 | 1 | 0/0/1 | 5 | 30,992.00 | 4.73 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 19,584 | 0 | 84,576 | 1 | 1/0/0 | 3 | 28,192.00 | -4.73 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 19,288 | 0 | 120,415 | 1 | 0/1/0 | 4 | 30,103.75 | 1.73 |
| Mayo | 137,970 | 4.66 | 14,378 | 0 | 123,592 | 1 | 0/1/0 | 4 | 30,898.00 | 4.41 |
| Meath | 220,826 | 7.46 | 3,882 | 0 | 216,944 | 2 | 1/1/0 | 7 | 30,992.00 | 4.73 |
| Monaghan | 65,288 | 2.21 | 0 | 19,288 | 84,576 | 1 | 1/0/0 | 3 | 28,192.00 | -4.73 |
| Offaly | 83,150 | 2.81 | 0 | 3,245 | 86,395 | 1 | 1/0/0 | 3 | 28,798.33 | -2.68 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 14,378 | 84,576 | 1 | 1/0/0 | 3 | 28,192.00 | -4.73 |
| Tipperary | 167,895 | 5.67 | 0 | 3,970 | 171,865 | 2 | 2/0/0 | 6 | 28,644.17 | -3.20 |
| Waterford | 127,363 | 4.30 | 5,233 | 0 | 122,130 | 1 | 0/1/0 | 4 | 30,532.50 | 3.18 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 3,245 | 0 | 92,976 | 1 | 1/0/0 | 3 | 30,992.00 | 4.73 |
| Wexford | 163,919 | 5.54 | 0 | 5,233 | 169,152 | 2 | 2/0/0 | 6 | 28,192.00 | -4.73 |
| Wicklow | 155,851 | 5.27 | 3,024 | 0 | 152,827 | 1 | 0/0/1 | 5 | 30,565.40 | 3.29 |

Table 82: 11 Transfers (Total 156052)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|--------------------|
| Kilkenny | Carlow | 19,584 | 18.80 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 19,288 | 13.81 |
| Meath | Cavan | 3,882 | 1.76 |
| Westmeath | Offaly | 3,245 | 3.37 |
| Wicklow | Carlow | 3,024 | 1.94 |
| Clare | Tipperary | 3,970 | 3.10 |
| Kerry | Cork | 1,498 | 0.96 |
| Waterford | Wexford | 5,233 | 4.11 |
| Leitrim | Donegal | 35,199 | 100.00 |
| Mayo | Sligo | 14,378 | 10.42 |

Figure 28: Sol27 (174 seats, 52 constituencies, 11 transfers, 29,621.50 persons per TD, Δ_{max} 1,400 (4.73% of 29,592), weighted variation 2.71%)

3.28 Solution Sol28

Table 83: Solution 28

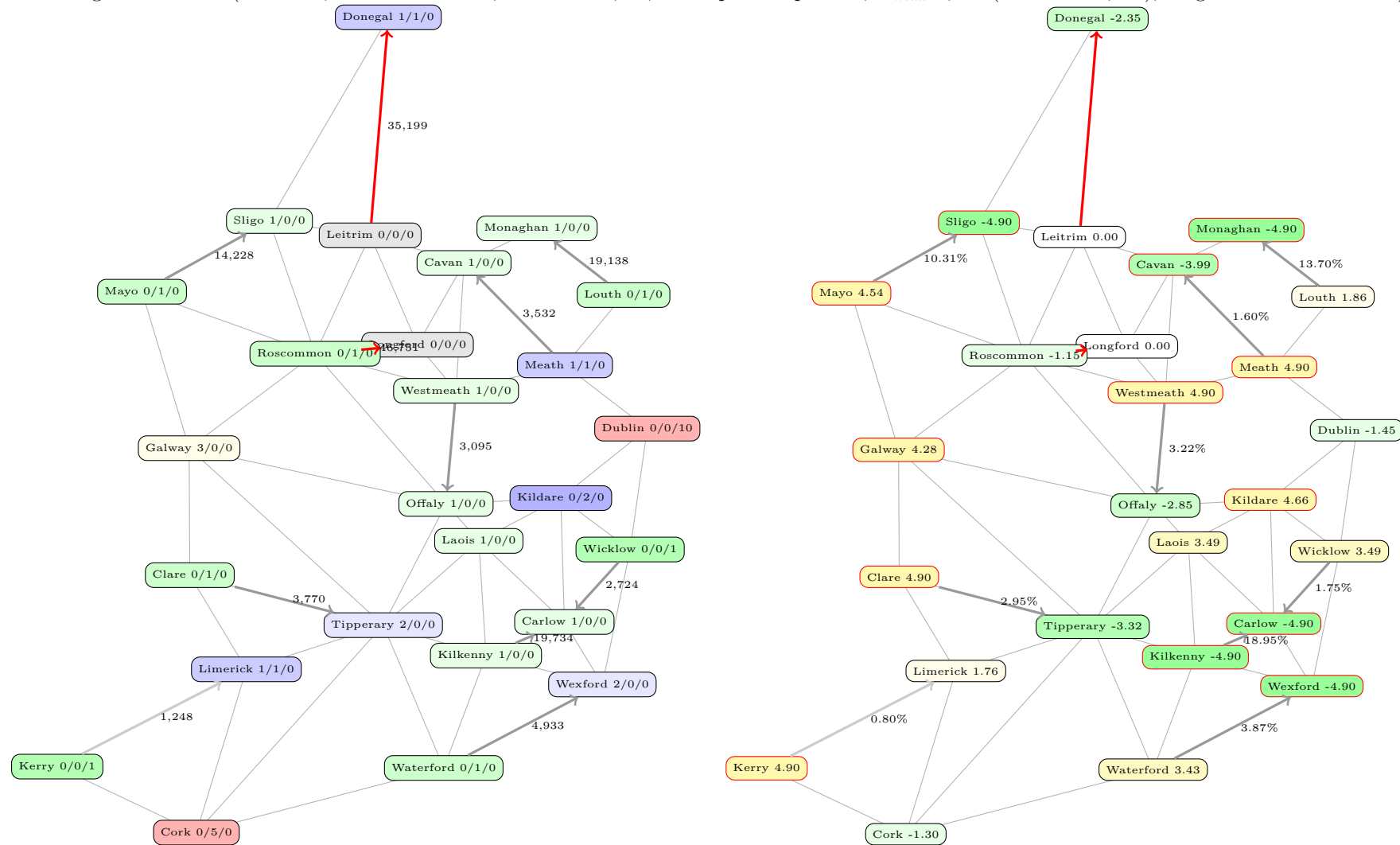
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol28 | 174 | 1,450 | 4.90 | 9.80 | 28,142.00 | 31,042.00 | 29,623.54 | 919,277.74 | 2.83 | 11 | 154,352 | 45 | 18/15/12 | 3.87 | Optimal | 3.28 | 0.0006 |

Table 84: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 22,458 | 84,426 | 1 | 1/0/0 | 3 | 28,142.00 | -4.90 |
| Cavan | 81,704 | 2.76 | 0 | 3,532 | 85,236 | 1 | 1/0/0 | 3 | 28,412.00 | -3.99 |
| Clare | 127,938 | 4.32 | 3,770 | 0 | 124,168 | 1 | 0/1/0 | 4 | 31,042.00 | 4.90 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 5 | 0/5/0 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 0 | 35,199 | 202,283 | 2 | 1/1/0 | 7 | 28,897.57 | -2.35 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 1,248 | 0 | 155,210 | 1 | 0/0/1 | 5 | 31,042.00 | 4.90 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 19,734 | 0 | 84,426 | 1 | 1/0/0 | 3 | 28,142.00 | -4.90 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 1,248 | 210,784 | 2 | 1/1/0 | 7 | 30,112.00 | 1.76 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 19,138 | 0 | 120,565 | 1 | 0/1/0 | 4 | 30,141.25 | 1.86 |
| Mayo | 137,970 | 4.66 | 14,228 | 0 | 123,742 | 1 | 0/1/0 | 4 | 30,935.50 | 4.54 |
| Meath | 220,826 | 7.46 | 3,532 | 0 | 217,294 | 2 | 1/1/0 | 7 | 31,042.00 | 4.90 |
| Monaghan | 65,288 | 2.21 | 0 | 19,138 | 84,426 | 1 | 1/0/0 | 3 | 28,142.00 | -4.90 |
| Offaly | 83,150 | 2.81 | 0 | 3,095 | 86,245 | 1 | 1/0/0 | 3 | 28,748.33 | -2.85 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 14,228 | 84,426 | 1 | 1/0/0 | 3 | 28,142.00 | -4.90 |
| Tipperary | 167,895 | 5.67 | 0 | 3,770 | 171,665 | 2 | 2/0/0 | 6 | 28,610.83 | -3.32 |
| Waterford | 127,363 | 4.30 | 4,933 | 0 | 122,430 | 1 | 0/1/0 | 4 | 30,607.50 | 3.43 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 3,095 | 0 | 93,126 | 1 | 1/0/0 | 3 | 31,042.00 | 4.90 |
| Wexford | 163,919 | 5.54 | 0 | 4,933 | 168,852 | 2 | 2/0/0 | 6 | 28,142.00 | -4.90 |
| Wicklow | 155,851 | 5.27 | 2,724 | 0 | 153,127 | 1 | 0/0/1 | 5 | 30,625.40 | 3.49 |

| Table 85: 11 Transfers (Total 154352) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,734 | 18.95 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 19,138 | 13.70 |
| Meath | Cavan | 3,532 | 1.60 |
| Westmeath | Offaly | 3,095 | 3.22 |
| Wicklow | Carlow | 2,724 | 1.75 |
| Clare | Tipperary | 3,770 | 2.95 |
| Kerry | Limerick | 1,248 | 0.80 |
| Waterford | Wexford | 4,933 | 3.87 |
| Leitrim | Donegal | 35,199 | 100.00 |
| Mayo | Sligo | 14,228 | 10.31 |

Figure 29: Sol28 (174 seats, 45 constituencies, 11 transfers, 29,623.54 persons per TD, Δ_{max} 1,450 (4.90% of 29,592), weighted variation 2.83%)

3.29 Solution Sol29

Table 86: Solution 29

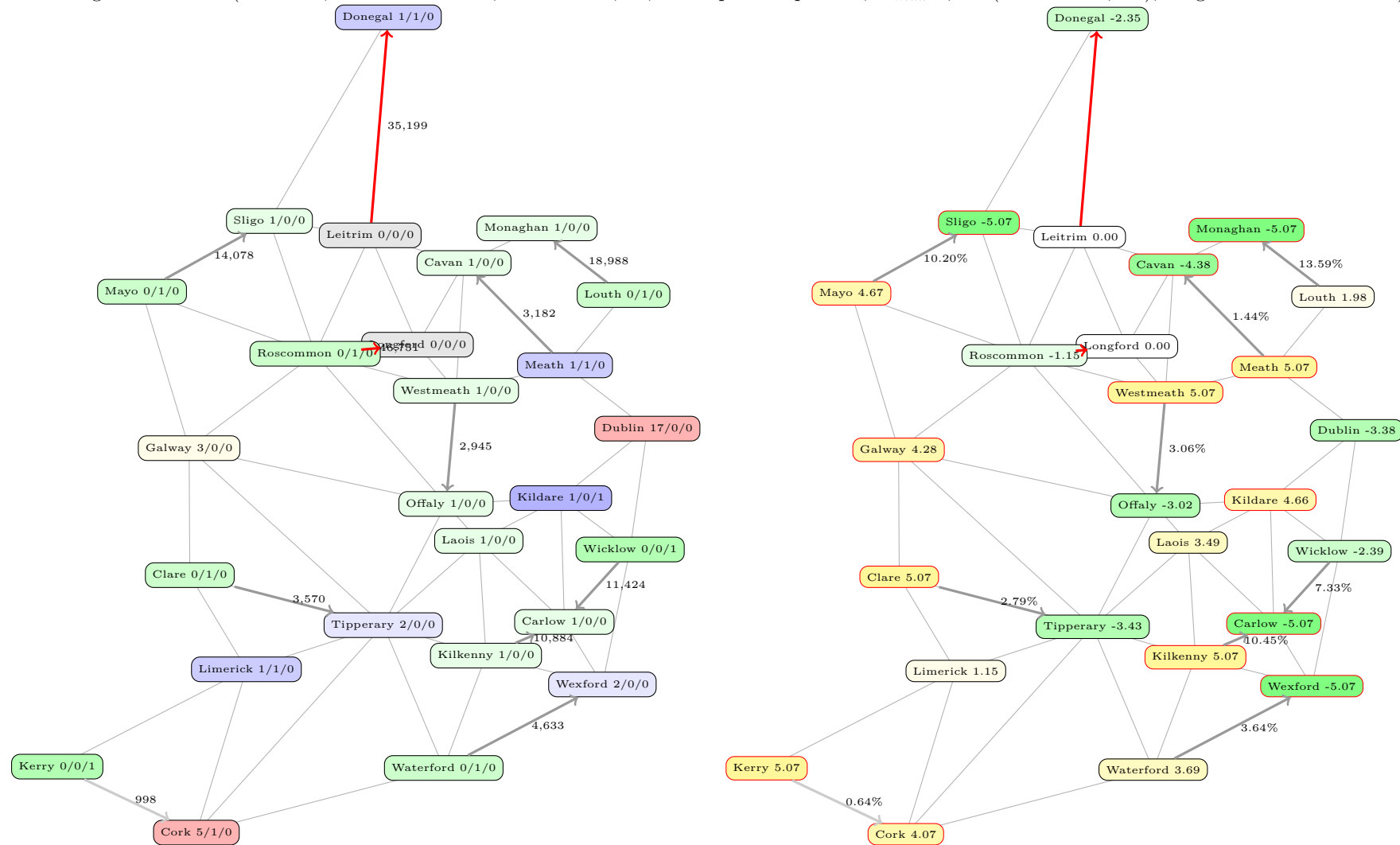
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol29 | 174 | 1,500 | 5.07 | 10.14 | 28,092.00 | 31,092.00 | 29,637.30 | 1,325,062.12 | 3.70 | 11 | 152,652 | 53 | 41/9/3 | 3.28 | Optimal | 1.06 | 0.0000 |

Table 87: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 22,308 | 84,276 | 1 | 1/0/0 | 3 | 28,092.00 | -5.07 |
| Cavan | 81,704 | 2.76 | 0 | 3,182 | 84,886 | 1 | 1/0/0 | 3 | 28,295.33 | -4.38 |
| Clare | 127,938 | 4.32 | 3,570 | 0 | 124,368 | 1 | 0/1/0 | 4 | 31,092.00 | 5.07 |
| Cork | 584,156 | 19.74 | 0 | 998 | 585,154 | 6 | 5/1/0 | 19 | 30,797.58 | 4.07 |
| Donegal | 167,084 | 5.65 | 0 | 35,199 | 202,283 | 2 | 1/1/0 | 7 | 28,897.57 | -2.35 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 17 | 17/0/0 | 51 | 28,591.25 | -3.38 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 998 | 0 | 155,460 | 1 | 0/0/1 | 5 | 31,092.00 | 5.07 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 10,884 | 0 | 93,276 | 1 | 1/0/0 | 3 | 31,092.00 | 5.07 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 18,988 | 0 | 120,715 | 1 | 0/1/0 | 4 | 30,178.75 | 1.98 |
| Mayo | 137,970 | 4.66 | 14,078 | 0 | 123,892 | 1 | 0/1/0 | 4 | 30,973.00 | 4.67 |
| Meath | 220,826 | 7.46 | 3,182 | 0 | 217,644 | 2 | 1/1/0 | 7 | 31,092.00 | 5.07 |
| Monaghan | 65,288 | 2.21 | 0 | 18,988 | 84,276 | 1 | 1/0/0 | 3 | 28,092.00 | -5.07 |
| Offaly | 83,150 | 2.81 | 0 | 2,945 | 86,095 | 1 | 1/0/0 | 3 | 28,698.33 | -3.02 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 14,078 | 84,276 | 1 | 1/0/0 | 3 | 28,092.00 | -5.07 |
| Tipperary | 167,895 | 5.67 | 0 | 3,570 | 171,465 | 2 | 2/0/0 | 6 | 28,577.50 | -3.43 |
| Waterford | 127,363 | 4.30 | 4,633 | 0 | 122,730 | 1 | 0/1/0 | 4 | 30,682.50 | 3.69 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 2,945 | 0 | 93,276 | 1 | 1/0/0 | 3 | 31,092.00 | 5.07 |
| Wexford | 163,919 | 5.54 | 0 | 4,633 | 168,552 | 2 | 2/0/0 | 6 | 28,092.00 | -5.07 |
| Wicklow | 155,851 | 5.27 | 11,424 | 0 | 144,427 | 1 | 0/0/1 | 5 | 28,885.40 | -2.39 |

| Table 88: 11 Transfers (Total 152652) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 10,884 | 10.45 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 18,988 | 13.59 |
| Meath | Cavan | 3,182 | 1.44 |
| Westmeath | Offaly | 2,945 | 3.06 |
| Wicklow | Carlow | 11,424 | 7.33 |
| Clare | Tipperary | 3,570 | 2.79 |
| Kerry | Cork | 998 | 0.64 |
| Waterford | Wexford | 4,633 | 3.64 |
| Leitrim | Donegal | 35,199 | 100.00 |
| Mayo | Sligo | 14,078 | 10.20 |

Figure 30: Sol29 (174 seats, 53 constituencies, 11 transfers, 29,637.30 persons per TD, Δ_{max} 1,500 (5.07% of 29,592), weighted variation 3.70%)

3.30 Solution Sol30

Table 89: Solution 30

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol30 | 174 | 1,550 | 5.24 | 10.48 | 28,042.00 | 31,142.00 | 29,626.74 | 1,013,773.08 | 2.93 | 11 | 150,952 | 46 | 18/20/8 | 3.78 | Optimal | 1.79 | 0.0000 |

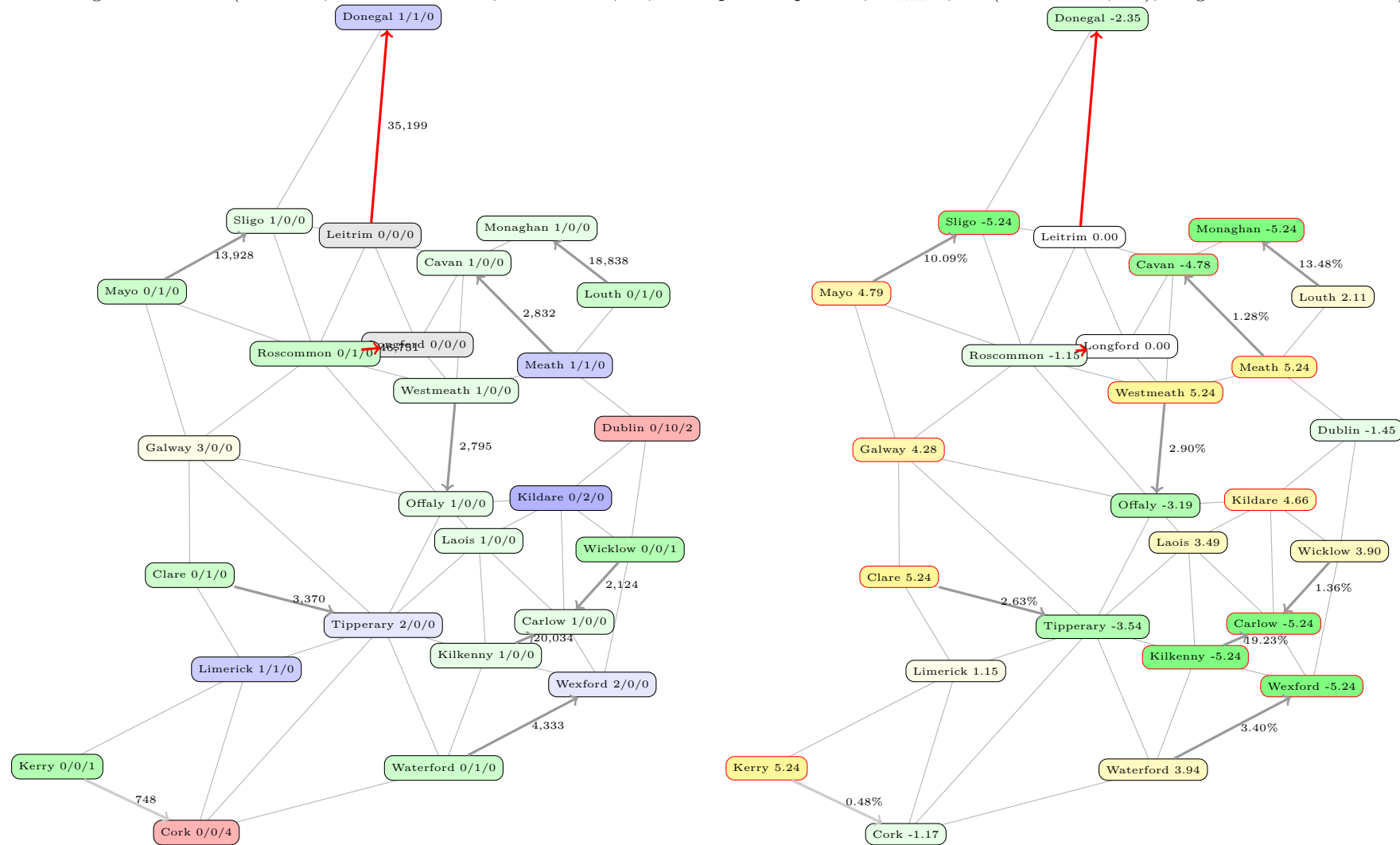
Table 90: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 22,158 | 84,126 | 1 | 1/0/0 | 3 | 28,042.00 | -5.24 |
| Cavan | 81,704 | 2.76 | 0 | 2,832 | 84,536 | 1 | 1/0/0 | 3 | 28,178.67 | -4.78 |
| Clare | 127,938 | 4.32 | 3,370 | 0 | 124,568 | 1 | 0/1/0 | 4 | 31,142.00 | 5.24 |
| Cork | 584,156 | 19.74 | 0 | 748 | 584,904 | 4 | 0/0/4 | 20 | 29,245.20 | -1.17 |
| Donegal | 167,084 | 5.65 | 0 | 35,199 | 202,283 | 2 | 1/1/0 | 7 | 28,897.57 | -2.35 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 12 | 0/10/2 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 748 | 0 | 155,710 | 1 | 0/0/1 | 5 | 31,142.00 | 5.24 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 20,034 | 0 | 84,126 | 1 | 1/0/0 | 3 | 28,042.00 | -5.24 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 18,838 | 0 | 120,865 | 1 | 0/1/0 | 4 | 30,216.25 | 2.11 |
| Mayo | 137,970 | 4.66 | 13,928 | 0 | 124,042 | 1 | 0/1/0 | 4 | 31,010.50 | 4.79 |
| Meath | 220,826 | 7.46 | 2,832 | 0 | 217,994 | 2 | 1/1/0 | 7 | 31,142.00 | 5.24 |
| Monaghan | 65,288 | 2.21 | 0 | 18,838 | 84,126 | 1 | 1/0/0 | 3 | 28,042.00 | -5.24 |
| Offaly | 83,150 | 2.81 | 0 | 2,795 | 85,945 | 1 | 1/0/0 | 3 | 28,648.33 | -3.19 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 13,928 | 84,126 | 1 | 1/0/0 | 3 | 28,042.00 | -5.24 |
| Tipperary | 167,895 | 5.67 | 0 | 3,370 | 171,265 | 2 | 2/0/0 | 6 | 28,544.17 | -3.54 |
| Waterford | 127,363 | 4.30 | 4,333 | 0 | 123,030 | 1 | 0/1/0 | 4 | 30,757.50 | 3.94 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 2,795 | 0 | 93,426 | 1 | 1/0/0 | 3 | 31,142.00 | 5.24 |
| Wexford | 163,919 | 5.54 | 0 | 4,333 | 168,252 | 2 | 2/0/0 | 6 | 28,042.00 | -5.24 |
| Wicklow | 155,851 | 5.27 | 2,124 | 0 | 153,727 | 1 | 0/0/1 | 5 | 30,745.40 | 3.90 |

Table 91: 11 Transfers (Total 150952)

| From | To | Volume | Percent of From |
|-----------|-----------|--------|-----------------|
| Kilkenny | Carlow | 20,034 | 19.23 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 18,838 | 13.48 |
| Meath | Cavan | 2,832 | 1.28 |
| Westmeath | Offaly | 2,795 | 2.90 |
| Wicklow | Carlow | 2,124 | 1.36 |
| Clare | Tipperary | 3,370 | 2.63 |
| Kerry | Cork | 748 | 0.48 |
| Waterford | Wexford | 4,333 | 3.40 |
| Leitrim | Donegal | 35,199 | 100.00 |
| Mayo | Sligo | 13,928 | 10.09 |

Figure 31: Sol30 (174 seats, 46 constituencies, 11 transfers, 29,626.74 persons per TD, Δ_{max} 1,550 (5.24% of 29,592), weighted variation 2.93%)

3.31 Solution Sol31

Table 92: Solution 31

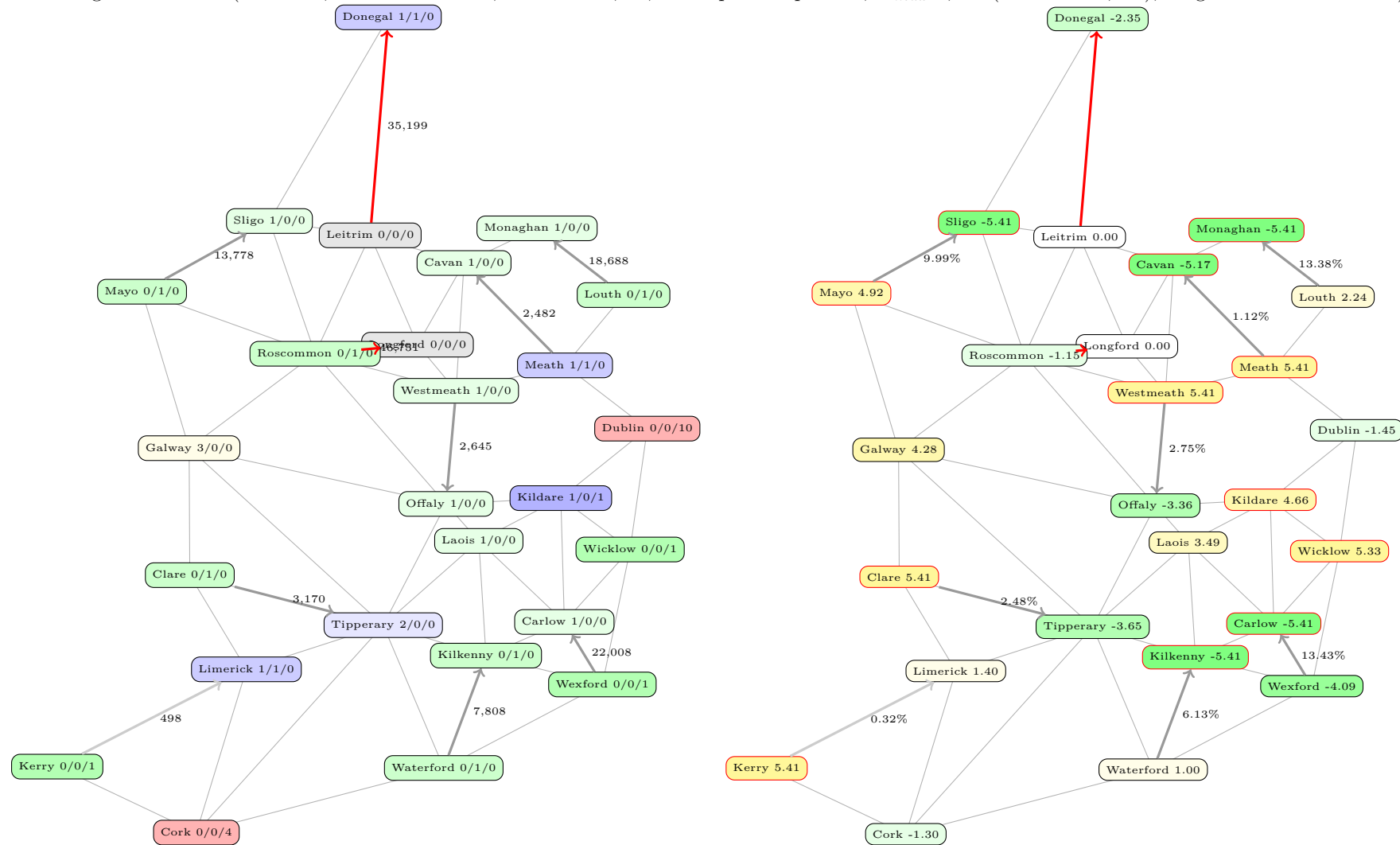
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol31 | 174 | 1,600 | 5.41 | 10.81 | 27,992.00 | 31,192.00 | 29,627.58 | 1,041,758.43 | 2.94 | 10 | 153,027 | 43 | 16/9/18 | 4.05 | Optimal | 0.79 | 0.0049 |

Table 93: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 22,008 | 83,976 | 1 | 1/0/0 | 3 | 27,992.00 | -5.41 |
| Cavan | 81,704 | 2.76 | 0 | 2,482 | 84,186 | 1 | 1/0/0 | 3 | 28,062.00 | -5.17 |
| Clare | 127,938 | 4.32 | 3,170 | 0 | 124,768 | 1 | 0/1/0 | 4 | 31,192.00 | 5.41 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 4 | 0/0/4 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 0 | 35,199 | 202,283 | 2 | 1/1/0 | 7 | 28,897.57 | -2.35 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 498 | 0 | 155,960 | 1 | 0/0/1 | 5 | 31,192.00 | 5.41 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 0 | 7,808 | 111,968 | 1 | 0/1/0 | 4 | 27,992.00 | -5.41 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 498 | 210,034 | 2 | 1/1/0 | 7 | 30,004.86 | 1.40 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 18,688 | 0 | 121,015 | 1 | 0/1/0 | 4 | 30,253.75 | 2.24 |
| Mayo | 137,970 | 4.66 | 13,778 | 0 | 124,192 | 1 | 0/1/0 | 4 | 31,048.00 | 4.92 |
| Meath | 220,826 | 7.46 | 2,482 | 0 | 218,344 | 2 | 1/1/0 | 7 | 31,192.00 | 5.41 |
| Monaghan | 65,288 | 2.21 | 0 | 18,688 | 83,976 | 1 | 1/0/0 | 3 | 27,992.00 | -5.41 |
| Offaly | 83,150 | 2.81 | 0 | 2,645 | 85,795 | 1 | 1/0/0 | 3 | 28,598.33 | -3.36 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 13,778 | 83,976 | 1 | 1/0/0 | 3 | 27,992.00 | -5.41 |
| Tipperary | 167,895 | 5.67 | 0 | 3,170 | 171,065 | 2 | 2/0/0 | 6 | 28,510.83 | -3.65 |
| Waterford | 127,363 | 4.30 | 7,808 | 0 | 119,555 | 1 | 0/1/0 | 4 | 29,888.75 | 1.00 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 2,645 | 0 | 93,576 | 1 | 1/0/0 | 3 | 31,192.00 | 5.41 |
| Wexford | 163,919 | 5.54 | 22,008 | 0 | 141,911 | 1 | 0/0/1 | 5 | 28,382.20 | -4.09 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 94: 10 Transfers (Total 153027) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 18,688 | 13.38 |
| Meath | Cavan | 2,482 | 1.12 |
| Westmeath | Offaly | 2,645 | 2.75 |
| Wexford | Carlow | 22,008 | 13.43 |
| Clare | Tipperary | 3,170 | 2.48 |
| Kerry | Limerick | 498 | 0.32 |
| Waterford | Kilkenny | 7,808 | 6.13 |
| Leitrim | Donegal | 35,199 | 100.00 |
| Mayo | Sligo | 13,778 | 9.99 |

Figure 32: Sol31 (174 seats, 43 constituencies, 10 transfers, 29,627.58 persons per TD, Δ_{max} 1,600 (5.41% of 29,592), weighted variation 2.94%)

3.32 Solution Sol32

Table 95: Solution 32

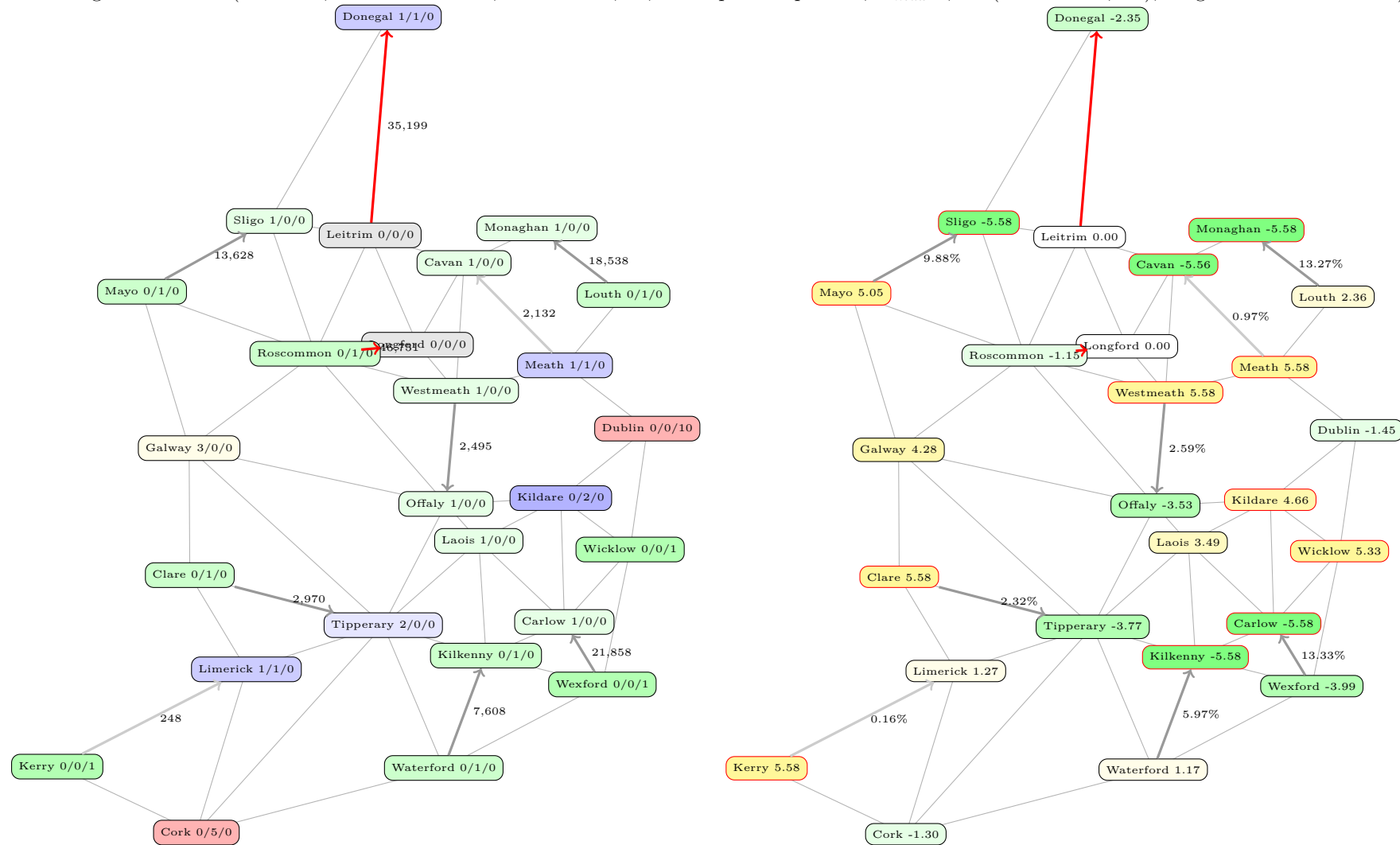
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol32 | 174 | 1,650 | 5.58 | 11.15 | 27,942.00 | 31,242.00 | 29,629.00 | 1,083,530.76 | 2.98 | 10 | 151,427 | 44 | 15/16/13 | 3.95 | Optimal | 1.06 | 0.0025 |

Table 96: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 21,858 | 83,826 | 1 | 1/0/0 | 3 | 27,942.00 | -5.58 |
| Cavan | 81,704 | 2.76 | 0 | 2,132 | 83,836 | 1 | 1/0/0 | 3 | 27,945.33 | -5.56 |
| Clare | 127,938 | 4.32 | 2,970 | 0 | 124,968 | 1 | 0/1/0 | 4 | 31,242.00 | 5.58 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 5 | 0/5/0 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 0 | 35,199 | 202,283 | 2 | 1/1/0 | 7 | 28,897.57 | -2.35 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 248 | 0 | 156,210 | 1 | 0/0/1 | 5 | 31,242.00 | 5.58 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 0 | 7,608 | 111,768 | 1 | 0/1/0 | 4 | 27,942.00 | -5.58 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 248 | 209,784 | 2 | 1/1/0 | 7 | 29,969.14 | 1.27 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 18,538 | 0 | 121,165 | 1 | 0/1/0 | 4 | 30,291.25 | 2.36 |
| Mayo | 137,970 | 4.66 | 13,628 | 0 | 124,342 | 1 | 0/1/0 | 4 | 31,085.50 | 5.05 |
| Meath | 220,826 | 7.46 | 2,132 | 0 | 218,694 | 2 | 1/1/0 | 7 | 31,242.00 | 5.58 |
| Monaghan | 65,288 | 2.21 | 0 | 18,538 | 83,826 | 1 | 1/0/0 | 3 | 27,942.00 | -5.58 |
| Offaly | 83,150 | 2.81 | 0 | 2,495 | 85,645 | 1 | 1/0/0 | 3 | 28,548.33 | -3.53 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 13,628 | 83,826 | 1 | 1/0/0 | 3 | 27,942.00 | -5.58 |
| Tipperary | 167,895 | 5.67 | 0 | 2,970 | 170,865 | 2 | 2/0/0 | 6 | 28,477.50 | -3.77 |
| Waterford | 127,363 | 4.30 | 7,608 | 0 | 119,755 | 1 | 0/1/0 | 4 | 29,938.75 | 1.17 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 2,495 | 0 | 93,726 | 1 | 1/0/0 | 3 | 31,242.00 | 5.58 |
| Wexford | 163,919 | 5.54 | 21,858 | 0 | 142,061 | 1 | 0/0/1 | 5 | 28,412.20 | -3.99 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 97: 10 Transfers (Total 151427) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 18,538 | 13.27 |
| Meath | Cavan | 2,132 | 0.97 |
| Westmeath | Offaly | 2,495 | 2.59 |
| Wexford | Carlow | 21,858 | 13.33 |
| Clare | Tipperary | 2,970 | 2.32 |
| Kerry | Limerick | 248 | 0.16 |
| Waterford | Kilkenny | 7,608 | 5.97 |
| Leitrim | Donegal | 35,199 | 100.00 |
| Mayo | Sligo | 13,628 | 9.88 |

Figure 33: Sol32 (174 seats, 44 constituencies, 10 transfers, 29,629.00 persons per TD, Δ_{max} 1,650 (5.58% of 29,592), weighted variation 2.98%)

3.33 Solution Sol33

Table 98: Solution 33

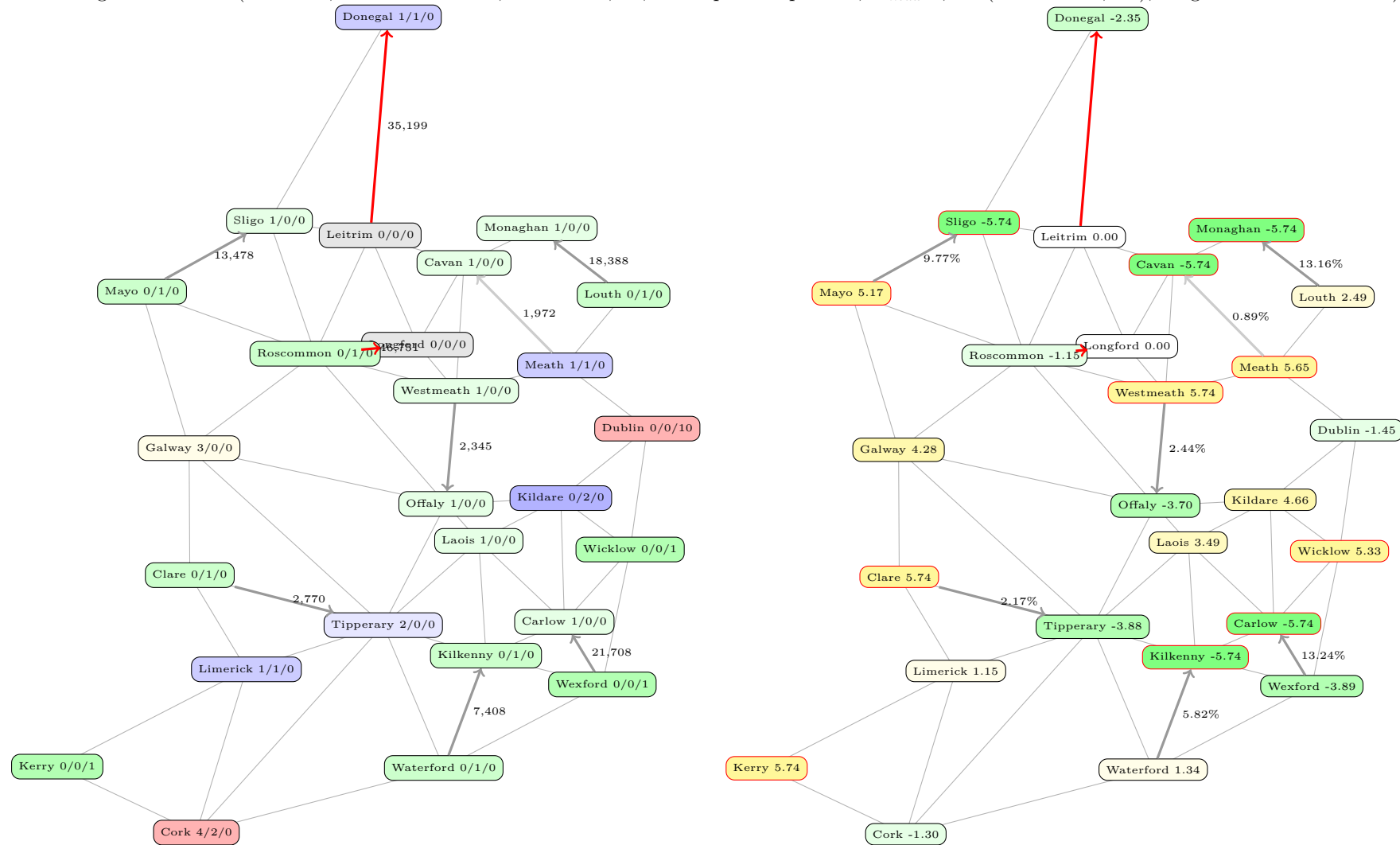
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|----------|------------------|-----------------|----------|-------------|
| Sol33 | 174 | 1,700 | 5.74 | 11.49 | 27,892.00 | 31,292.00 | 29,630.22 | 1,119,730.68 | 3.02 | 9 | 150,019 | 45 | 19/13/13 | 3.87 | Optimal | 0.69 | 0.0000 |

Table 99: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 21,708 | 83,676 | 1 | 1/0/0 | 3 | 27,892.00 | -5.74 |
| Cavan | 81,704 | 2.76 | 0 | 1,972 | 83,676 | 1 | 1/0/0 | 3 | 27,892.00 | -5.74 |
| Clare | 127,938 | 4.32 | 2,770 | 0 | 125,168 | 1 | 0/1/0 | 4 | 31,292.00 | 5.74 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 4/2/0 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 0 | 35,199 | 202,283 | 2 | 1/1/0 | 7 | 28,897.57 | -2.35 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 0 | 7,408 | 111,568 | 1 | 0/1/0 | 4 | 27,892.00 | -5.74 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 18,388 | 0 | 121,315 | 1 | 0/1/0 | 4 | 30,328.75 | 2.49 |
| Mayo | 137,970 | 4.66 | 13,478 | 0 | 124,492 | 1 | 0/1/0 | 4 | 31,123.00 | 5.17 |
| Meath | 220,826 | 7.46 | 1,972 | 0 | 218,854 | 2 | 1/1/0 | 7 | 31,264.86 | 5.65 |
| Monaghan | 65,288 | 2.21 | 0 | 18,388 | 83,676 | 1 | 1/0/0 | 3 | 27,892.00 | -5.74 |
| Offaly | 83,150 | 2.81 | 0 | 2,345 | 85,495 | 1 | 1/0/0 | 3 | 28,498.33 | -3.70 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 13,478 | 83,676 | 1 | 1/0/0 | 3 | 27,892.00 | -5.74 |
| Tipperary | 167,895 | 5.67 | 0 | 2,770 | 170,665 | 2 | 2/0/0 | 6 | 28,444.17 | -3.88 |
| Waterford | 127,363 | 4.30 | 7,408 | 0 | 119,955 | 1 | 0/1/0 | 4 | 29,988.75 | 1.34 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 2,345 | 0 | 93,876 | 1 | 1/0/0 | 3 | 31,292.00 | 5.74 |
| Wexford | 163,919 | 5.54 | 21,708 | 0 | 142,211 | 1 | 0/0/1 | 5 | 28,442.20 | -3.89 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 100: 9 Transfers (Total 150019) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 18,388 | 13.16 |
| Meath | Cavan | 1,972 | 0.89 |
| Westmeath | Offaly | 2,345 | 2.44 |
| Wexford | Carlow | 21,708 | 13.24 |
| Clare | Tipperary | 2,770 | 2.17 |
| Waterford | Kilkenny | 7,408 | 5.82 |
| Leitrim | Donegal | 35,199 | 100.00 |
| Mayo | Sligo | 13,478 | 9.77 |

Figure 34: Sol33 (174 seats, 45 constituencies, 9 transfers, 29,630.22 persons per TD, Δ_{max} 1,700 (5.74% of 29,592), weighted variation 3.02%)

3.34 Solution Sol34

Table 101: Solution 34

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol34 | 174 | 1,750 | 5.91 | 11.83 | 27,842.00 | 31,342.00 | 29,640.31 | 1,400,727.80 | 3.52 | 9 | 147,423 | 51 | 33/15/3 | 3.41 | Optimal | 1.06 | 0.0056 |

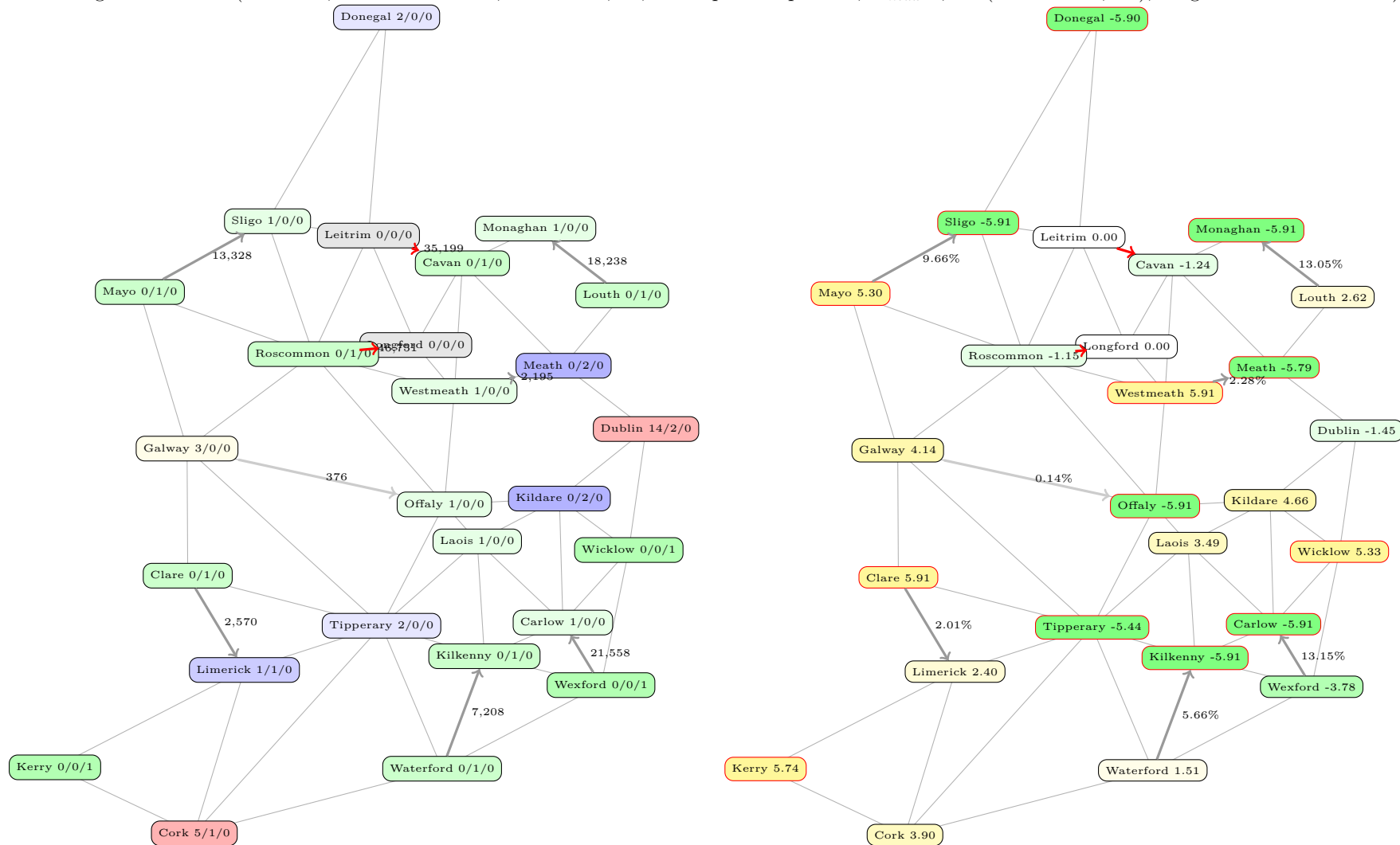
Table 102: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 21,558 | 83,526 | 1 | 1/0/0 | 3 | 27,842.00 | -5.91 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 2,570 | 0 | 125,368 | 1 | 0/1/0 | 4 | 31,342.00 | 5.91 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/1/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 14/2/0 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 376 | 0 | 277,361 | 3 | 3/0/0 | 9 | 30,817.89 | 4.14 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 0 | 7,208 | 111,368 | 1 | 0/1/0 | 4 | 27,842.00 | -5.91 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 2,570 | 212,106 | 2 | 1/1/0 | 7 | 30,300.86 | 2.40 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 18,238 | 0 | 121,465 | 1 | 0/1/0 | 4 | 30,366.25 | 2.62 |
| Mayo | 137,970 | 4.66 | 13,328 | 0 | 124,642 | 1 | 0/1/0 | 4 | 31,160.50 | 5.30 |
| Meath | 220,826 | 7.46 | 0 | 2,195 | 223,021 | 2 | 0/2/0 | 8 | 27,877.63 | -5.79 |
| Monaghan | 65,288 | 2.21 | 0 | 18,238 | 83,526 | 1 | 1/0/0 | 3 | 27,842.00 | -5.91 |
| Offaly | 83,150 | 2.81 | 0 | 376 | 83,526 | 1 | 1/0/0 | 3 | 27,842.00 | -5.91 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 13,328 | 83,526 | 1 | 1/0/0 | 3 | 27,842.00 | -5.91 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 7,208 | 0 | 120,155 | 1 | 0/1/0 | 4 | 30,038.75 | 1.51 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 2,195 | 0 | 94,026 | 1 | 1/0/0 | 3 | 31,342.00 | 5.91 |
| Wexford | 163,919 | 5.54 | 21,558 | 0 | 142,361 | 1 | 0/0/1 | 5 | 28,472.20 | -3.78 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 103: 9 Transfers (Total 147423) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 18,238 | 13.05 |
| Westmeath | Meath | 2,195 | 2.28 |
| Wexford | Carlow | 21,558 | 13.15 |
| Clare | Limerick | 2,570 | 2.01 |
| Waterford | Kilkenny | 7,208 | 5.66 |
| Galway | Offaly | 376 | 0.14 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Mayo | Sligo | 13,328 | 9.66 |

Figure 35: Sol34 (174 seats, 51 constituencies, 9 transfers, 29,640.31 persons per TD, Δ_{max} 1,750 (5.91% of 29,592), weighted variation 3.52%)



3.35 Solution Sol35

Table 104: Solution 35

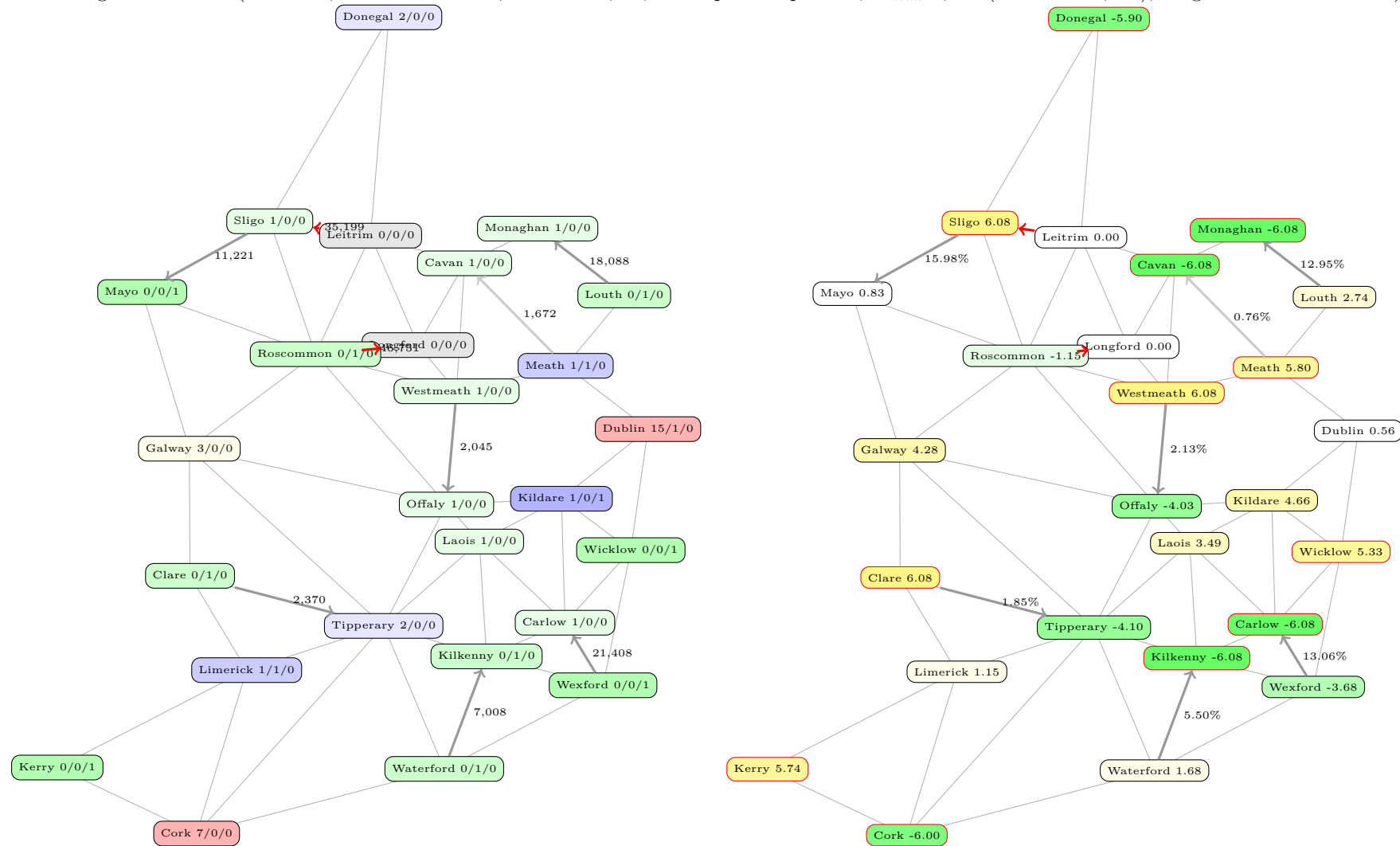
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol35 | 174 | 1,800 | 6.08 | 12.17 | 27,792.00 | 31,392.00 | 29,644.21 | 1,507,658.59 | 3.37 | 9 | 145,762 | 52 | 39/8/5 | 3.35 | Optimal | 1.27 | 0.0051 |

Table 105: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 21,408 | 83,376 | 1 | 1/0/0 | 3 | 27,792.00 | -6.08 |
| Cavan | 81,704 | 2.76 | 0 | 1,672 | 83,376 | 1 | 1/0/0 | 3 | 27,792.00 | -6.08 |
| Clare | 127,938 | 4.32 | 2,370 | 0 | 125,568 | 1 | 0/1/0 | 4 | 31,392.00 | 6.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 0 | 7,008 | 111,168 | 1 | 0/1/0 | 4 | 27,792.00 | -6.08 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 18,088 | 0 | 121,615 | 1 | 0/1/0 | 4 | 30,403.75 | 2.74 |
| Mayo | 137,970 | 4.66 | 0 | 11,221 | 149,191 | 1 | 0/0/1 | 5 | 29,838.20 | 0.83 |
| Meath | 220,826 | 7.46 | 1,672 | 0 | 219,154 | 2 | 1/1/0 | 7 | 31,307.71 | 5.80 |
| Monaghan | 65,288 | 2.21 | 0 | 18,088 | 83,376 | 1 | 1/0/0 | 3 | 27,792.00 | -6.08 |
| Offaly | 83,150 | 2.81 | 0 | 2,045 | 85,195 | 1 | 1/0/0 | 3 | 28,398.33 | -4.03 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 11,221 | 35,199 | 94,176 | 1 | 1/0/0 | 3 | 31,392.00 | 6.08 |
| Tipperary | 167,895 | 5.67 | 0 | 2,370 | 170,265 | 2 | 2/0/0 | 6 | 28,377.50 | -4.10 |
| Waterford | 127,363 | 4.30 | 7,008 | 0 | 120,355 | 1 | 0/1/0 | 4 | 30,088.75 | 1.68 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 2,045 | 0 | 94,176 | 1 | 1/0/0 | 3 | 31,392.00 | 6.08 |
| Wexford | 163,919 | 5.54 | 21,408 | 0 | 142,511 | 1 | 0/0/1 | 5 | 28,502.20 | -3.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 106: 9 Transfers (Total 145762) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 18,088 | 12.95 |
| Meath | Cavan | 1,672 | 0.76 |
| Westmeath | Offaly | 2,045 | 2.13 |
| Wexford | Carlow | 21,408 | 13.06 |
| Clare | Tipperary | 2,370 | 1.85 |
| Waterford | Kilkenny | 7,008 | 5.50 |
| Leitrim | Sligo | 35,199 | 100.00 |
| Sligo | Mayo | 11,221 | 15.98 |

Figure 36: Sol35 (174 seats, 52 constituencies, 9 transfers, 29,644.21 persons per TD, Δ_{max} 1,800 (6.08% of 29,592), weighted variation 3.37%)

3.36 Solution Sol36

Table 107: Solution 36

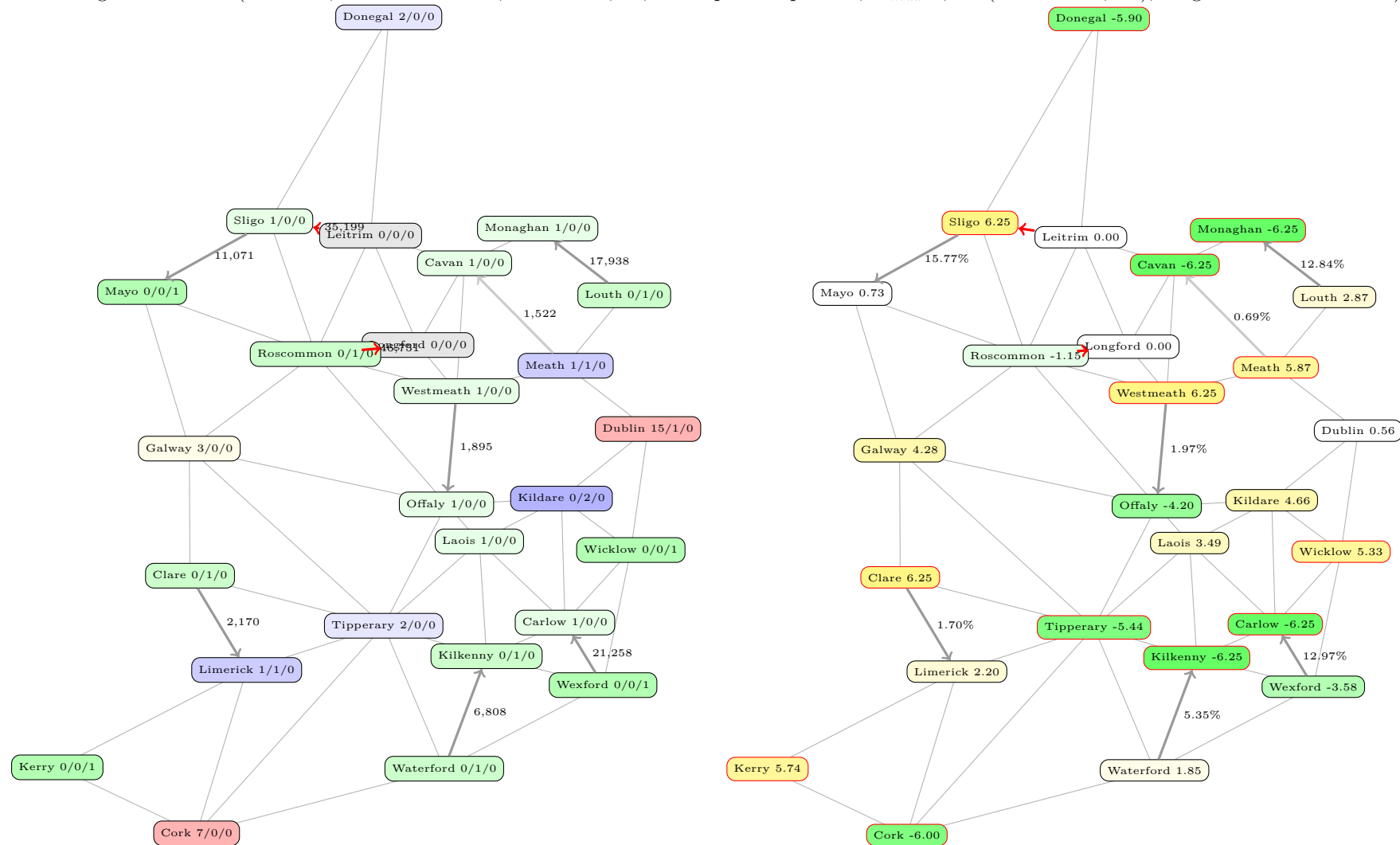
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol36 | 174 | 1,850 | 6.25 | 12.50 | 27,742.00 | 31,442.00 | 29,646.93 | 1,585,379.40 | 3.48 | 9 | 144,612 | 52 | 38/10/4 | 3.35 | Optimal | 2.01 | 0.0000 |

Table 108: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 21,258 | 83,226 | 1 | 1/0/0 | 3 | 27,742.00 | -6.25 |
| Cavan | 81,704 | 2.76 | 0 | 1,522 | 83,226 | 1 | 1/0/0 | 3 | 27,742.00 | -6.25 |
| Clare | 127,938 | 4.32 | 2,170 | 0 | 125,768 | 1 | 0/1/0 | 4 | 31,442.00 | 6.25 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 15/1/0 | 49 | 29,758.24 | 0.56 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 0 | 6,808 | 110,968 | 1 | 0/1/0 | 4 | 27,742.00 | -6.25 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 2,170 | 211,706 | 2 | 1/1/0 | 7 | 30,243.71 | 2.20 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 17,938 | 0 | 121,765 | 1 | 0/1/0 | 4 | 30,441.25 | 2.87 |
| Mayo | 137,970 | 4.66 | 0 | 11,071 | 149,041 | 1 | 0/0/1 | 5 | 29,808.20 | 0.73 |
| Meath | 220,826 | 7.46 | 1,522 | 0 | 219,304 | 2 | 1/1/0 | 7 | 31,329.14 | 5.87 |
| Monaghan | 65,288 | 2.21 | 0 | 17,938 | 83,226 | 1 | 1/0/0 | 3 | 27,742.00 | -6.25 |
| Offaly | 83,150 | 2.81 | 0 | 1,895 | 85,045 | 1 | 1/0/0 | 3 | 28,348.33 | -4.20 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 11,071 | 35,199 | 94,326 | 1 | 1/0/0 | 3 | 31,442.00 | 6.25 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 6,808 | 0 | 120,555 | 1 | 0/1/0 | 4 | 30,138.75 | 1.85 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 1,895 | 0 | 94,326 | 1 | 1/0/0 | 3 | 31,442.00 | 6.25 |
| Wexford | 163,919 | 5.54 | 21,258 | 0 | 142,661 | 1 | 0/0/1 | 5 | 28,532.20 | -3.58 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 109: 9 Transfers (Total 144612) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 17,938 | 12.84 |
| Meath | Cavan | 1,522 | 0.69 |
| Westmeath | Offaly | 1,895 | 1.97 |
| Wexford | Carlow | 21,258 | 12.97 |
| Clare | Limerick | 2,170 | 1.70 |
| Waterford | Kilkenny | 6,808 | 5.35 |
| Leitrim | Sligo | 35,199 | 100.00 |
| Sligo | Mayo | 11,071 | 15.77 |

Figure 37: Sol36 (174 seats, 52 constituencies, 9 transfers, 29,646.93 persons per TD, Δ_{max} 1,850 (6.25% of 29,592), weighted variation 3.48%)

3.37 Solution Sol37

Table 110: Solution 37

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol37 | 174 | 1,900 | 6.42 | 12.84 | 27,692.00 | 31,492.00 | 29,653.84 | 1,776,785.85 | 4.11 | 8 | 144,047 | 52 | 37/12/3 | 3.35 | Optimal | 1.02 | -0.0000 |

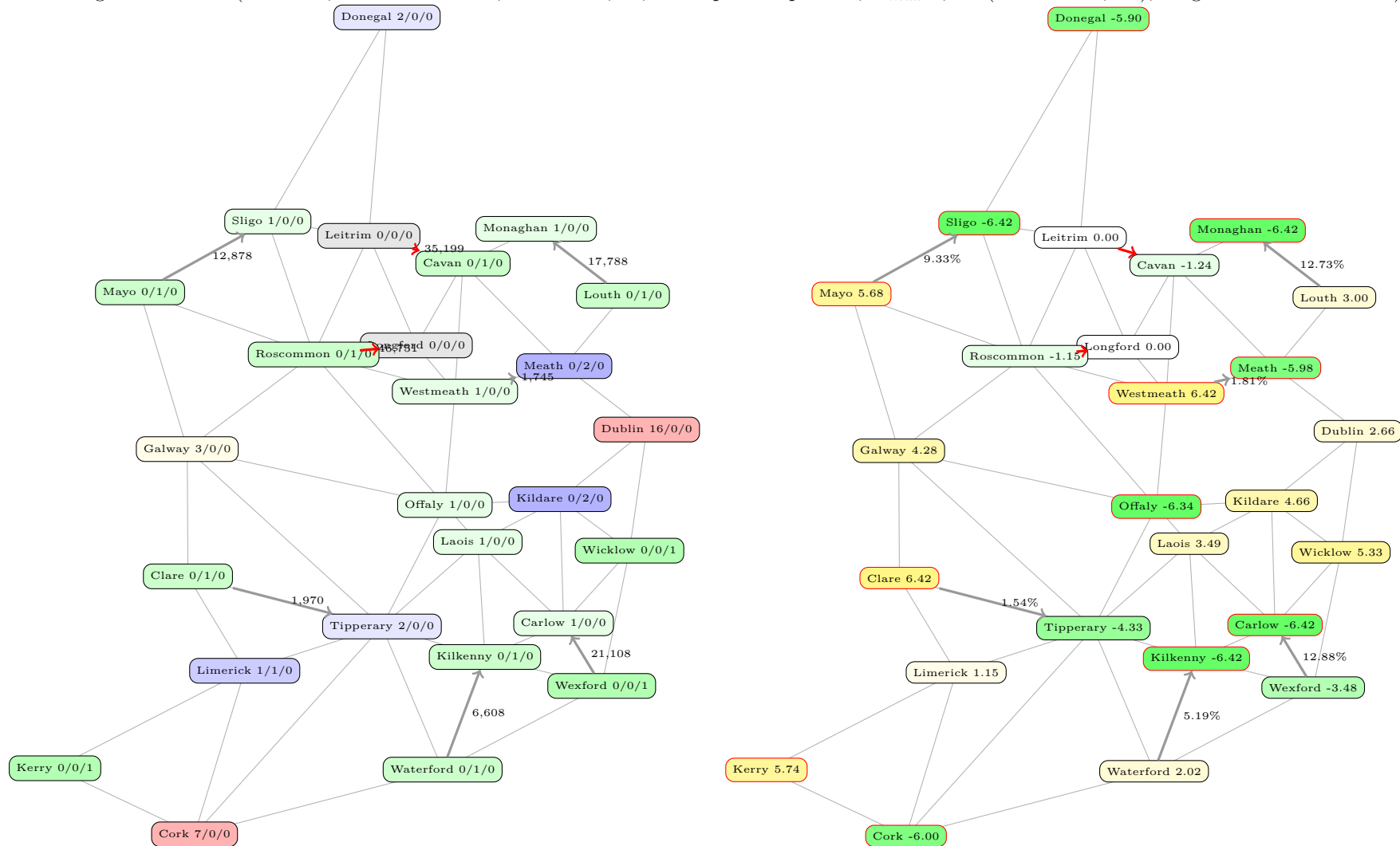
Table 111: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 21,108 | 83,076 | 1 | 1/0/0 | 3 | 27,692.00 | -6.42 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 1,970 | 0 | 125,968 | 1 | 0/1/0 | 4 | 31,492.00 | 6.42 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 16/0/0 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 0 | 6,608 | 110,768 | 1 | 0/1/0 | 4 | 27,692.00 | -6.42 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 17,788 | 0 | 121,915 | 1 | 0/1/0 | 4 | 30,478.75 | 3.00 |
| Mayo | 137,970 | 4.66 | 12,878 | 0 | 125,092 | 1 | 0/1/0 | 4 | 31,273.00 | 5.68 |
| Meath | 220,826 | 7.46 | 0 | 1,745 | 222,571 | 2 | 0/2/0 | 8 | 27,821.38 | -5.98 |
| Monaghan | 65,288 | 2.21 | 0 | 17,788 | 83,076 | 1 | 1/0/0 | 3 | 27,692.00 | -6.42 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 12,878 | 83,076 | 1 | 1/0/0 | 3 | 27,692.00 | -6.42 |
| Tipperary | 167,895 | 5.67 | 0 | 1,970 | 169,865 | 2 | 2/0/0 | 6 | 28,310.83 | -4.33 |
| Waterford | 127,363 | 4.30 | 6,608 | 0 | 120,755 | 1 | 0/1/0 | 4 | 30,188.75 | 2.02 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 1,745 | 0 | 94,476 | 1 | 1/0/0 | 3 | 31,492.00 | 6.42 |
| Wexford | 163,919 | 5.54 | 21,108 | 0 | 142,811 | 1 | 0/0/1 | 5 | 28,562.20 | -3.48 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 112: 8 Transfers (Total 144047) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 17,788 | 12.73 |
| Westmeath | Meath | 1,745 | 1.81 |
| Wexford | Carlow | 21,108 | 12.88 |
| Clare | Tipperary | 1,970 | 1.54 |
| Waterford | Kilkenny | 6,608 | 5.19 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Mayo | Sligo | 12,878 | 9.33 |

Figure 38: Sol37 (174 seats, 52 constituencies, 8 transfers, 29,653.84 persons per TD, Δ_{max} 1,900 (6.42% of 29,592), weighted variation 4.11%)



3.38 Solution Sol38

Table 113: Solution 38

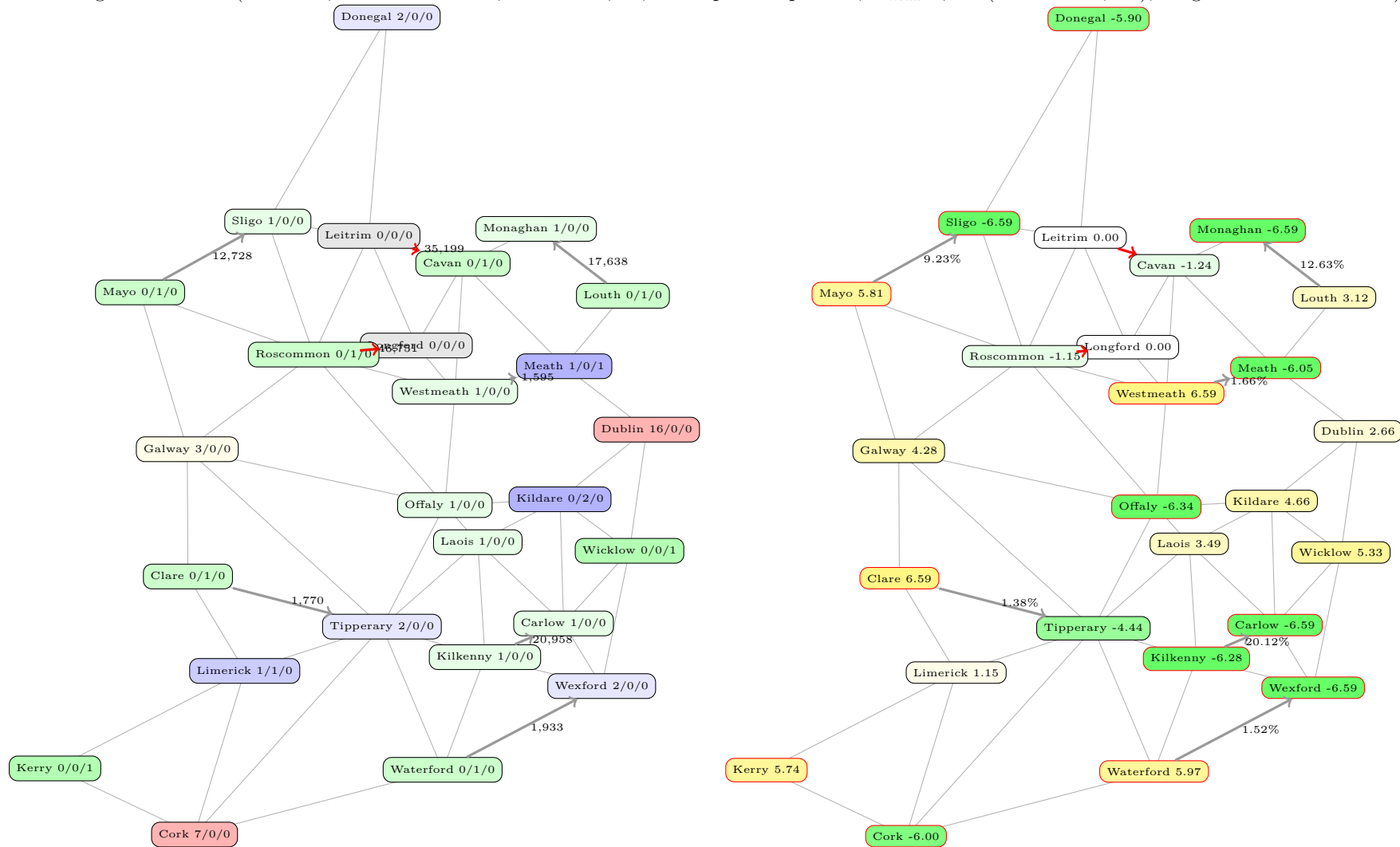
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol38 | 174 | 1,950 | 6.59 | 13.18 | 27,642.00 | 31,542.00 | 29,659.55 | 1,942,692.02 | 4.33 | 8 | 138,572 | 53 | 41/9/3 | 3.28 | Optimal | 1.51 | 0.0000 |

Table 114: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 20,958 | 82,926 | 1 | 1/0/0 | 3 | 27,642.00 | -6.59 |
| Cavan | 81,704 | 2.76 | 0 | 35,199 | 116,903 | 1 | 0/1/0 | 4 | 29,225.75 | -1.24 |
| Clare | 127,938 | 4.32 | 1,770 | 0 | 126,168 | 1 | 0/1/0 | 4 | 31,542.00 | 6.59 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 16/0/0 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 20,958 | 0 | 83,202 | 1 | 1/0/0 | 3 | 27,734.00 | -6.28 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 17,638 | 0 | 122,065 | 1 | 0/1/0 | 4 | 30,516.25 | 3.12 |
| Mayo | 137,970 | 4.66 | 12,728 | 0 | 125,242 | 1 | 0/1/0 | 4 | 31,310.50 | 5.81 |
| Meath | 220,826 | 7.46 | 0 | 1,595 | 222,421 | 2 | 1/0/1 | 8 | 27,802.63 | -6.05 |
| Monaghan | 65,288 | 2.21 | 0 | 17,638 | 82,926 | 1 | 1/0/0 | 3 | 27,642.00 | -6.59 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 46,751 | 117,010 | 1 | 0/1/0 | 4 | 29,252.50 | -1.15 |
| Sligo | 70,198 | 2.37 | 0 | 12,728 | 82,926 | 1 | 1/0/0 | 3 | 27,642.00 | -6.59 |
| Tipperary | 167,895 | 5.67 | 0 | 1,770 | 169,665 | 2 | 2/0/0 | 6 | 28,277.50 | -4.44 |
| Waterford | 127,363 | 4.30 | 1,933 | 0 | 125,430 | 1 | 0/1/0 | 4 | 31,357.50 | 5.97 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 1,595 | 0 | 94,626 | 1 | 1/0/0 | 3 | 31,542.00 | 6.59 |
| Wexford | 163,919 | 5.54 | 0 | 1,933 | 165,852 | 2 | 2/0/0 | 6 | 27,642.00 | -6.59 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 115: 8 Transfers (Total 138572) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 20,958 | 20.12 |
| Longford | Roscommon | 46,751 | 100.00 |
| Louth | Monaghan | 17,638 | 12.63 |
| Westmeath | Meath | 1,595 | 1.66 |
| Clare | Tipperary | 1,770 | 1.38 |
| Waterford | Wexford | 1,933 | 1.52 |
| Leitrim | Cavan | 35,199 | 100.00 |
| Mayo | Sligo | 12,728 | 9.23 |

Figure 39: Sol38 (174 seats, 53 constituencies, 8 transfers, 29,659.55 persons per TD, Δ_{max} 1,950 (6.59% of 29,592), weighted variation 4.33%)

3.39 Solution Sol39

Table 116: Solution 39

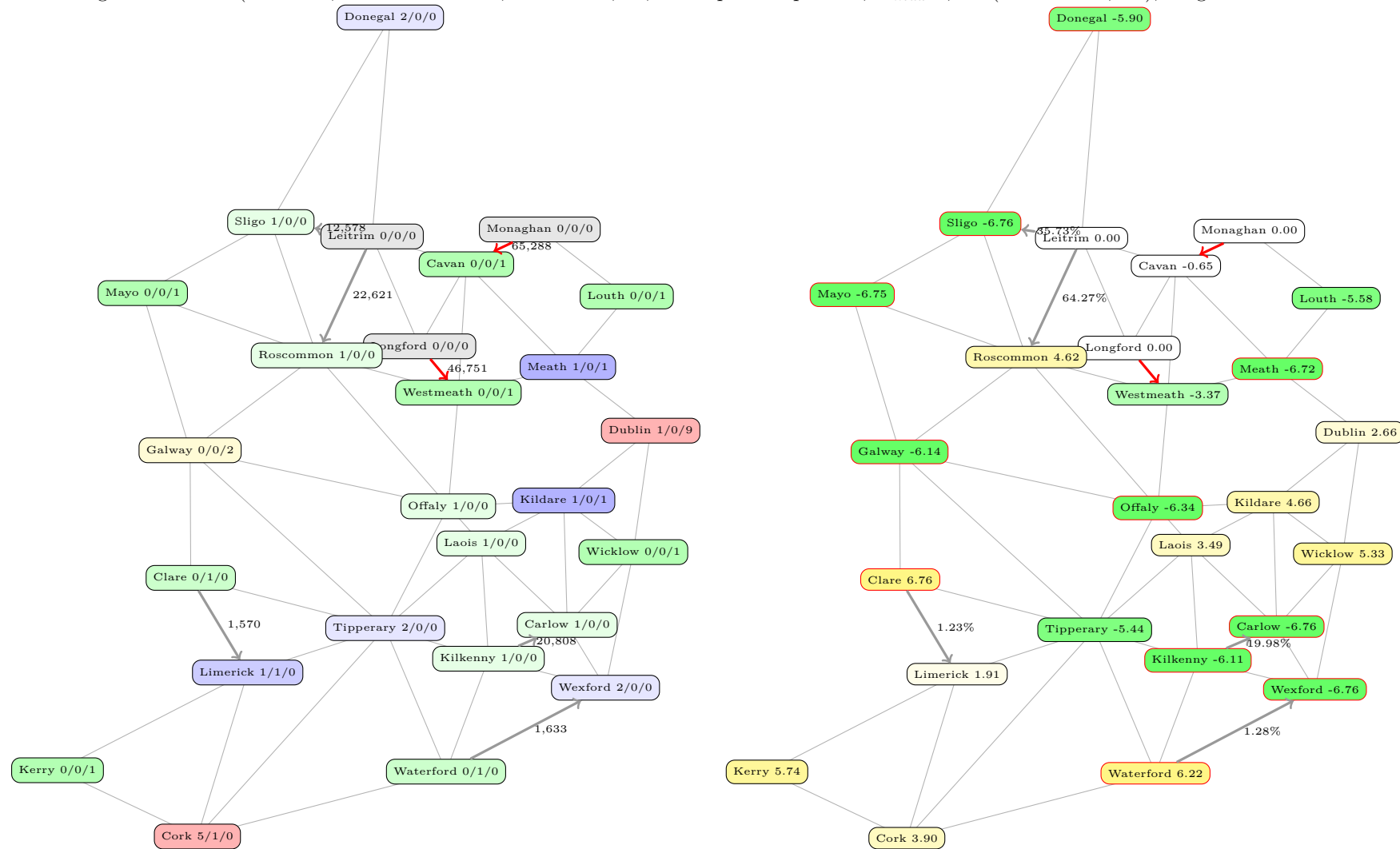
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol39 | 174 | 2,000 | 6.76 | 13.52 | 27,592.00 | 31,592.00 | 29,659.42 | 1,930,694.01 | 4.29 | 7 | 171,249 | 44 | 21/4/19 | 3.95 | Optimal | 0.49 | 0.0089 |

Table 117: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 20,808 | 82,776 | 1 | 1/0/0 | 3 | 27,592.00 | -6.76 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 1,570 | 0 | 126,368 | 1 | 0/1/0 | 4 | 31,592.00 | 6.76 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/1/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 1/0/9 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 2 | 0/0/2 | 10 | 27,773.70 | -6.14 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 20,808 | 0 | 83,352 | 1 | 1/0/0 | 3 | 27,784.00 | -6.11 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 1,570 | 211,106 | 2 | 1/1/0 | 7 | 30,158.00 | 1.91 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 0 | 0 | 139,703 | 1 | 0/0/1 | 5 | 27,940.60 | -5.58 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 22,621 | 92,880 | 1 | 1/0/0 | 3 | 30,960.00 | 4.62 |
| Sligo | 70,198 | 2.37 | 0 | 12,578 | 82,776 | 1 | 1/0/0 | 3 | 27,592.00 | -6.76 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 1,633 | 0 | 125,730 | 1 | 0/1/0 | 4 | 31,432.50 | 6.22 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 46,751 | 142,972 | 1 | 0/0/1 | 5 | 28,594.40 | -3.37 |
| Wexford | 163,919 | 5.54 | 0 | 1,633 | 165,552 | 2 | 2/0/0 | 6 | 27,592.00 | -6.76 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 118: 7 Transfers (Total 171249) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 20,808 | 19.98 |
| Longford | Westmeath | 46,751 | 100.00 |
| Clare | Limerick | 1,570 | 1.23 |
| Waterford | Wexford | 1,633 | 1.28 |
| Leitrim | Roscommon | 22,621 | 64.27 |
| Leitrim | Sligo | 12,578 | 35.73 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 40: Sol39 (174 seats, 44 constituencies, 7 transfers, 29,659.42 persons per TD, Δ_{max} 2,000 (6.76% of 29,592), weighted variation 4.29%)

3.40 Solution Sol40

Table 119: Solution 40

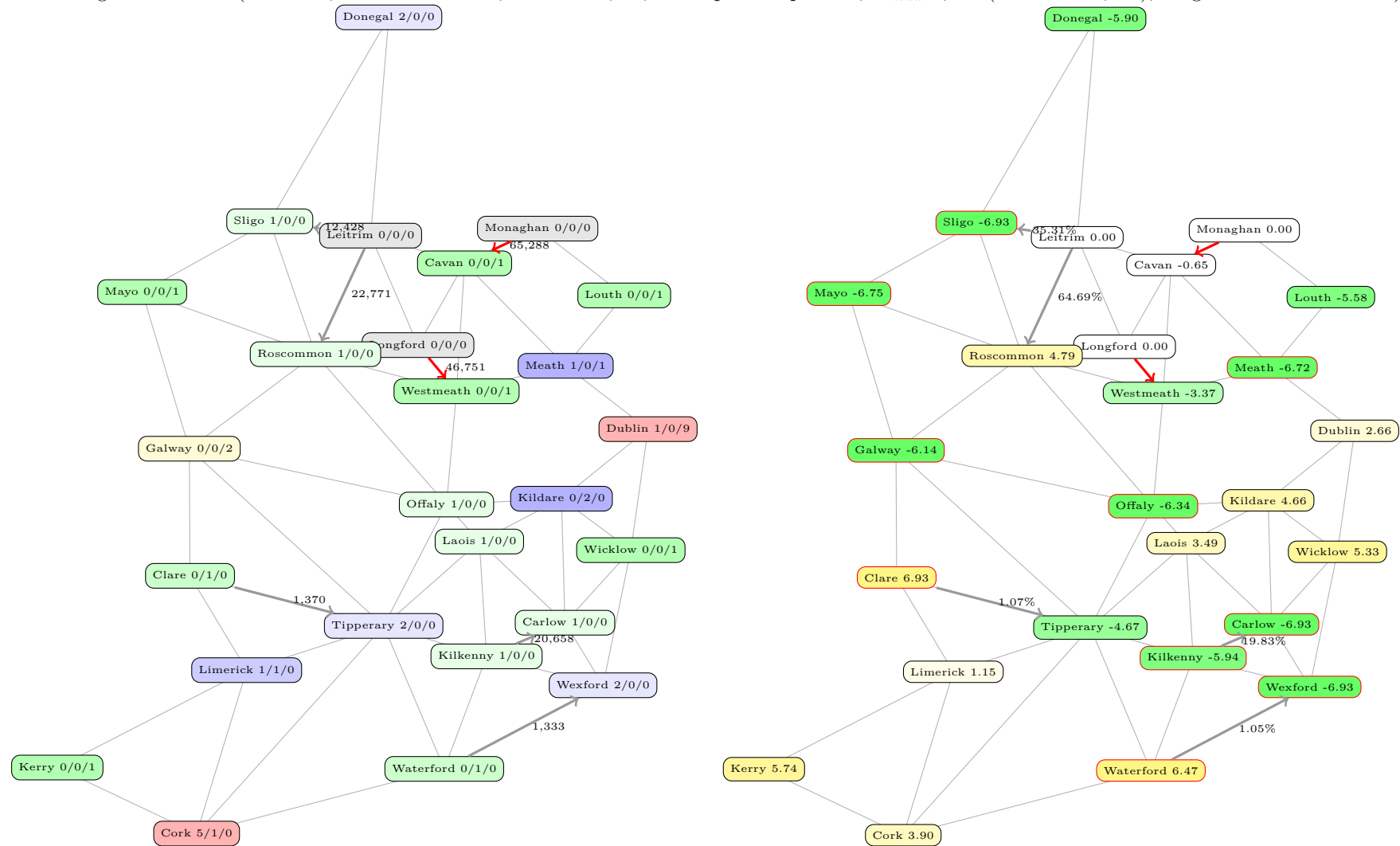
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol40 | 174 | 2,050 | 6.93 | 13.86 | 27,542.00 | 31,642.00 | 29,659.18 | 1,925,118.37 | 4.25 | 7 | 170,599 | 44 | 20/6/18 | 3.95 | Optimal | 0.44 | 0.0000 |

Table 120: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 20,658 | 82,626 | 1 | 1/0/0 | 3 | 27,542.00 | -6.93 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 1,370 | 0 | 126,568 | 1 | 0/1/0 | 4 | 31,642.00 | 6.93 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/1/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 1/0/9 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 2 | 0/0/2 | 10 | 27,773.70 | -6.14 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 20,658 | 0 | 83,502 | 1 | 1/0/0 | 3 | 27,834.00 | -5.94 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 0 | 0 | 139,703 | 1 | 0/0/1 | 5 | 27,940.60 | -5.58 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 22,771 | 93,030 | 1 | 1/0/0 | 3 | 31,010.00 | 4.79 |
| Sligo | 70,198 | 2.37 | 0 | 12,428 | 82,626 | 1 | 1/0/0 | 3 | 27,542.00 | -6.93 |
| Tipperary | 167,895 | 5.67 | 0 | 1,370 | 169,265 | 2 | 2/0/0 | 6 | 28,210.83 | -4.67 |
| Waterford | 127,363 | 4.30 | 1,333 | 0 | 126,030 | 1 | 0/1/0 | 4 | 31,507.50 | 6.47 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 46,751 | 142,972 | 1 | 0/0/1 | 5 | 28,594.40 | -3.37 |
| Wexford | 163,919 | 5.54 | 0 | 1,333 | 165,252 | 2 | 2/0/0 | 6 | 27,542.00 | -6.93 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 121: 7 Transfers (Total 170599) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 20,658 | 19.83 |
| Longford | Westmeath | 46,751 | 100.00 |
| Clare | Tipperary | 1,370 | 1.07 |
| Waterford | Wexford | 1,333 | 1.05 |
| Leitrim | Roscommon | 22,771 | 64.69 |
| Leitrim | Sligo | 12,428 | 35.31 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 41: Sol40 (174 seats, 44 constituencies, 7 transfers, 29,659.18 persons per TD, Δ_{max} 2,050 (6.93% of 29,592), weighted variation 4.25%)

3.41 Solution Sol41

Table 122: Solution 41

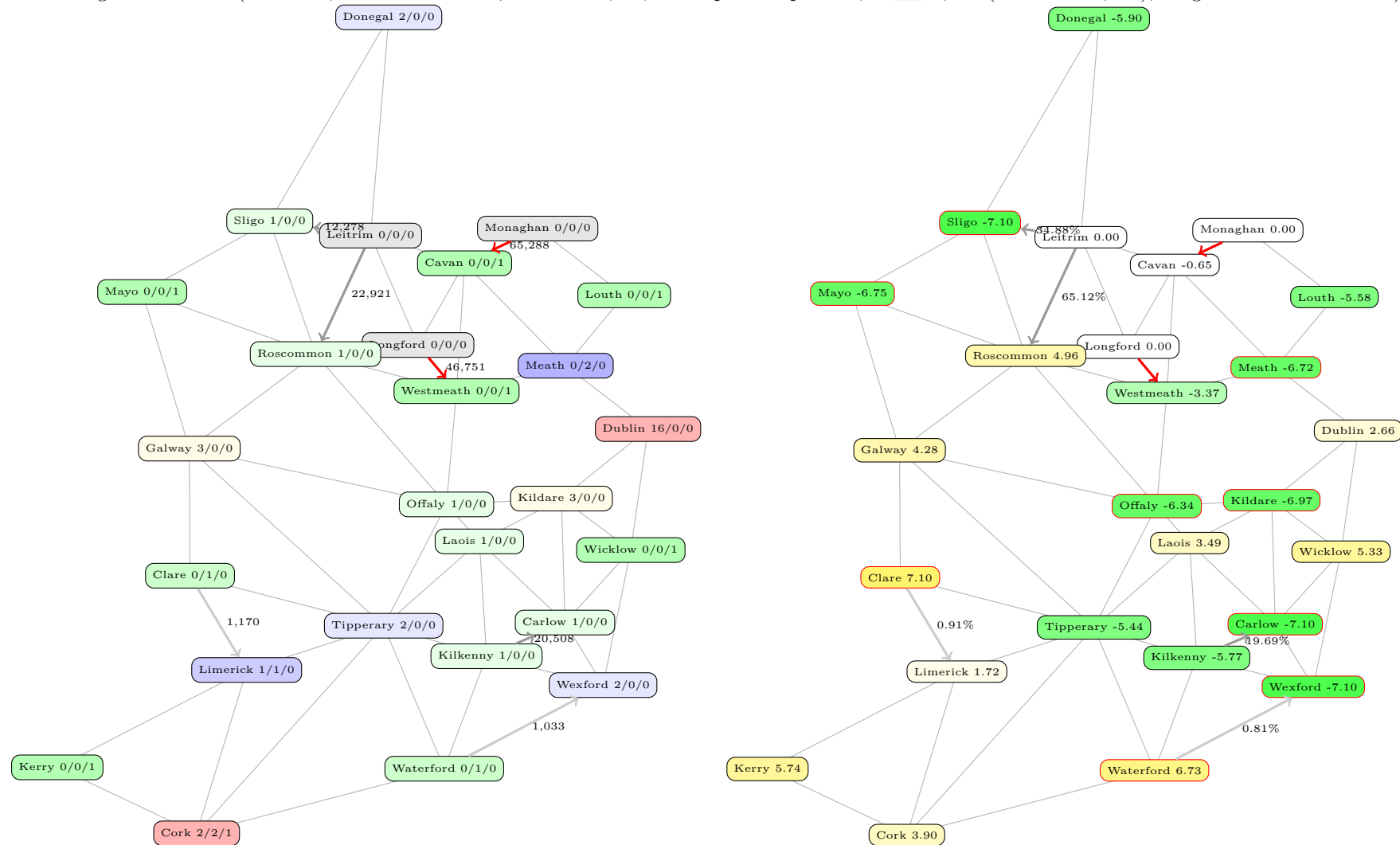
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol41 | 174 | 2,100 | 7.10 | 14.19 | 27,492.00 | 31,692.00 | 29,661.88 | 1,999,020.98 | 4.33 | 7 | 169,949 | 51 | 37/7/7 | 3.41 | Optimal | 1.46 | 0.0000 |

Table 123: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 20,508 | 82,476 | 1 | 1/0/0 | 3 | 27,492.00 | -7.10 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 1,170 | 0 | 126,768 | 1 | 0/1/0 | 4 | 31,692.00 | 7.10 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 5 | 2/2/1 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 16/0/0 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 3 | 3/0/0 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 20,508 | 0 | 83,652 | 1 | 1/0/0 | 3 | 27,884.00 | -5.77 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 1,170 | 210,706 | 2 | 1/1/0 | 7 | 30,100.86 | 1.72 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 0 | 0 | 139,703 | 1 | 0/0/1 | 5 | 27,940.60 | -5.58 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 0/2/0 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 22,921 | 93,180 | 1 | 1/0/0 | 3 | 31,060.00 | 4.96 |
| Sligo | 70,198 | 2.37 | 0 | 12,278 | 82,476 | 1 | 1/0/0 | 3 | 27,492.00 | -7.10 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 1,033 | 0 | 126,330 | 1 | 0/1/0 | 4 | 31,582.50 | 6.73 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 46,751 | 142,972 | 1 | 0/0/1 | 5 | 28,594.40 | -3.37 |
| Wexford | 163,919 | 5.54 | 0 | 1,033 | 164,952 | 2 | 2/0/0 | 6 | 27,492.00 | -7.10 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 124: 7 Transfers (Total 169949) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 20,508 | 19.69 |
| Longford | Westmeath | 46,751 | 100.00 |
| Clare | Limerick | 1,170 | 0.91 |
| Waterford | Wexford | 1,033 | 0.81 |
| Leitrim | Roscommon | 22,921 | 65.12 |
| Leitrim | Sligo | 12,278 | 34.88 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 42: Sol41 (174 seats, 51 constituencies, 7 transfers, 29,661.88 persons per TD, Δ_{max} 2,100 (7.10% of 29,592), weighted variation 4.33%)

3.42 Solution Sol42

Table 125: Solution 42

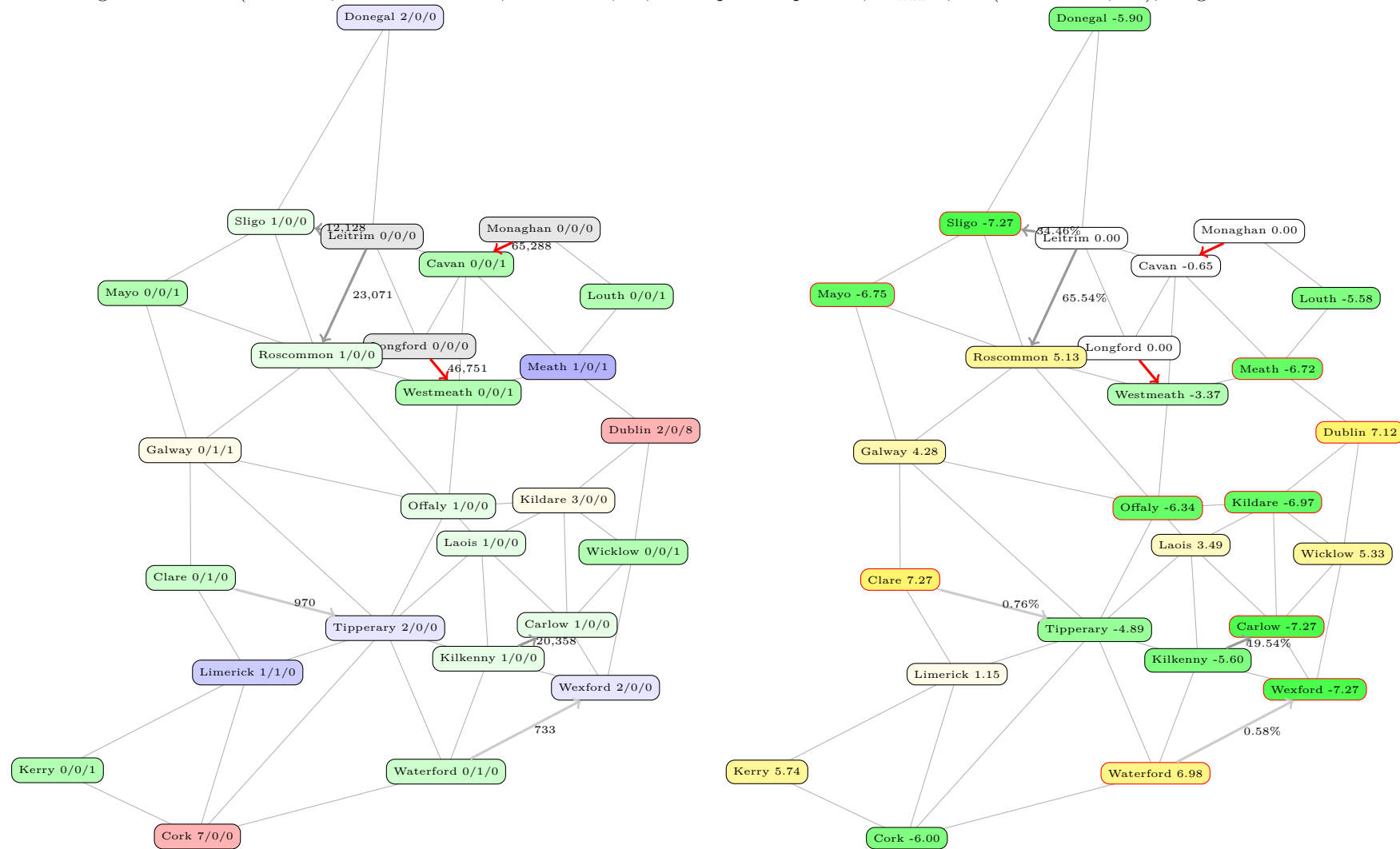
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol42 | 174 | 2,150 | 7.27 | 14.53 | 27,442.00 | 31,742.00 | 29,703.84 | 3,284,901.03 | 5.81 | 7 | 169,299 | 46 | 26/4/16 | 3.78 | Optimal | 1.10 | 0.0047 |

Table 126: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 20,358 | 82,326 | 1 | 1/0/0 | 3 | 27,442.00 | -7.27 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 970 | 0 | 126,968 | 1 | 0/1/0 | 4 | 31,742.00 | 7.27 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 2/0/8 | 46 | 31,699.00 | 7.12 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 2 | 0/1/1 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 3 | 3/0/0 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 20,358 | 0 | 83,802 | 1 | 1/0/0 | 3 | 27,934.00 | -5.60 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 0 | 0 | 139,703 | 1 | 0/0/1 | 5 | 27,940.60 | -5.58 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 23,071 | 93,330 | 1 | 1/0/0 | 3 | 31,110.00 | 5.13 |
| Sligo | 70,198 | 2.37 | 0 | 12,128 | 82,326 | 1 | 1/0/0 | 3 | 27,442.00 | -7.27 |
| Tipperary | 167,895 | 5.67 | 0 | 970 | 168,865 | 2 | 2/0/0 | 6 | 28,144.17 | -4.89 |
| Waterford | 127,363 | 4.30 | 733 | 0 | 126,630 | 1 | 0/1/0 | 4 | 31,657.50 | 6.98 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 46,751 | 142,972 | 1 | 0/0/1 | 5 | 28,594.40 | -3.37 |
| Wexford | 163,919 | 5.54 | 0 | 733 | 164,652 | 2 | 2/0/0 | 6 | 27,442.00 | -7.27 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 127: 7 Transfers (Total 169299) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 20,358 | 19.54 |
| Longford | Westmeath | 46,751 | 100.00 |
| Clare | Tipperary | 970 | 0.76 |
| Waterford | Wexford | 733 | 0.58 |
| Leitrim | Roscommon | 23,071 | 65.54 |
| Leitrim | Sligo | 12,128 | 34.46 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 43: Sol42 (174 seats, 46 constituencies, 7 transfers, 29,703.84 persons per TD, Δ_{max} 2,150 (7.27% of 29,592), weighted variation 5.81%)

3.43 Solution Sol43

Table 128: Solution 43

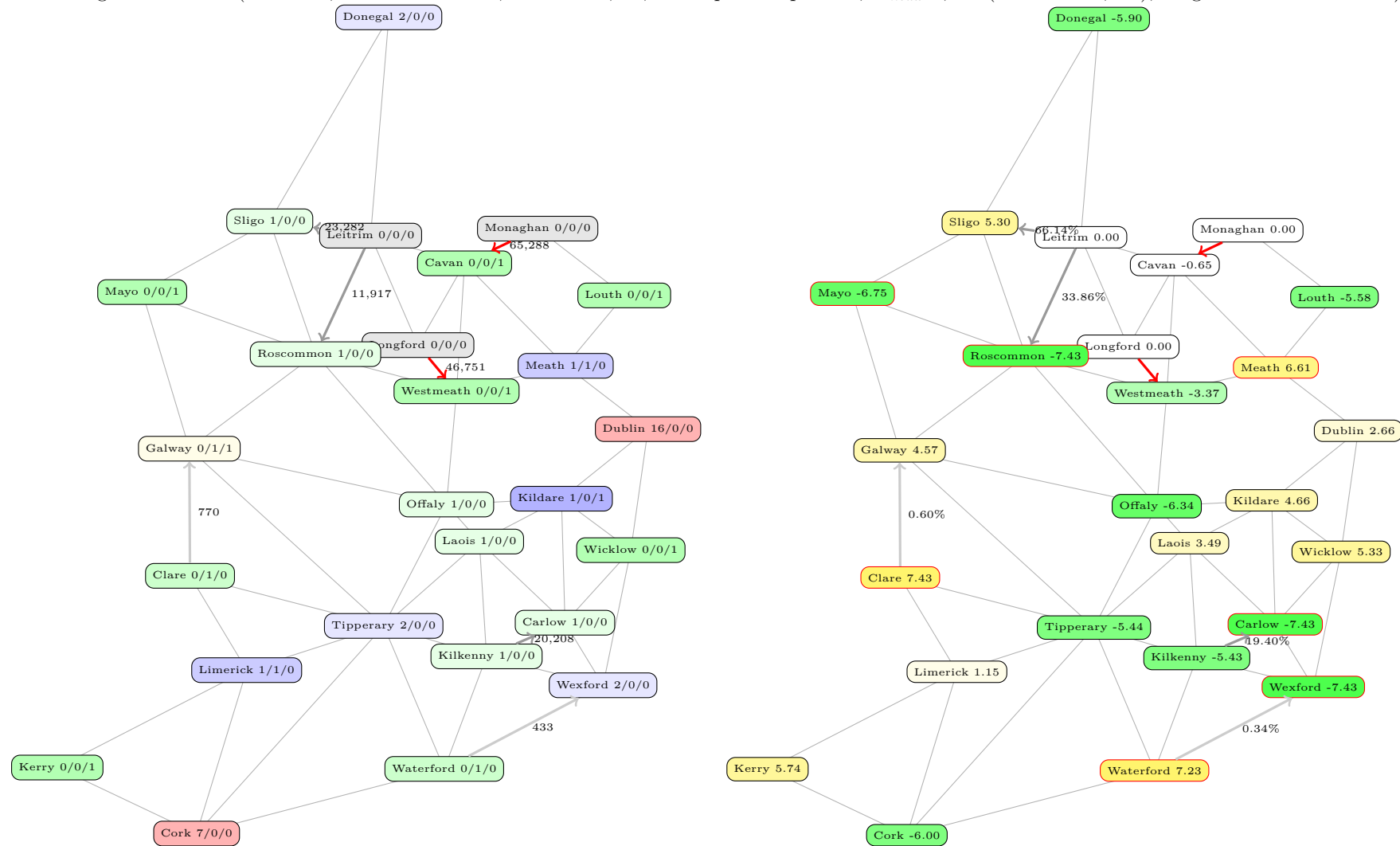
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol43 | 174 | 2,200 | 7.43 | 14.87 | 27,392.00 | 31,792.00 | 29,666.40 | 2,146,349.23 | 4.48 | 7 | 168,649 | 51 | 38/5/8 | 3.41 | Optimal | 0.76 | 0.0049 |

Table 129: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 20,208 | 82,176 | 1 | 1/0/0 | 3 | 27,392.00 | -7.43 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 770 | 0 | 127,168 | 1 | 0/1/0 | 4 | 31,792.00 | 7.43 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 16 | 16/0/0 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 770 | 278,507 | 2 | 0/1/1 | 9 | 30,945.22 | 4.57 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 20,208 | 0 | 83,952 | 1 | 1/0/0 | 3 | 27,984.00 | -5.43 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 0 | 0 | 139,703 | 1 | 0/0/1 | 5 | 27,940.60 | -5.58 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/1/0 | 7 | 31,546.57 | 6.61 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 11,917 | 82,176 | 1 | 1/0/0 | 3 | 27,392.00 | -7.43 |
| Sligo | 70,198 | 2.37 | 0 | 23,282 | 93,480 | 1 | 1/0/0 | 3 | 31,160.00 | 5.30 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 433 | 0 | 126,930 | 1 | 0/1/0 | 4 | 31,732.50 | 7.23 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 46,751 | 142,972 | 1 | 0/0/1 | 5 | 28,594.40 | -3.37 |
| Wexford | 163,919 | 5.54 | 0 | 433 | 164,352 | 2 | 2/0/0 | 6 | 27,392.00 | -7.43 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 130: 7 Transfers (Total 168649) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 20,208 | 19.40 |
| Longford | Westmeath | 46,751 | 100.00 |
| Clare | Galway | 770 | 0.60 |
| Waterford | Wexford | 433 | 0.34 |
| Leitrim | Roscommon | 11,917 | 33.86 |
| Leitrim | Sligo | 23,282 | 66.14 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 44: Sol43 (174 seats, 51 constituencies, 7 transfers, 29,666.40 persons per TD, Δ_{max} 2,200 (7.43% of 29,592), weighted variation 4.48%)

3.44 Solution Sol44

Table 131: Solution 44

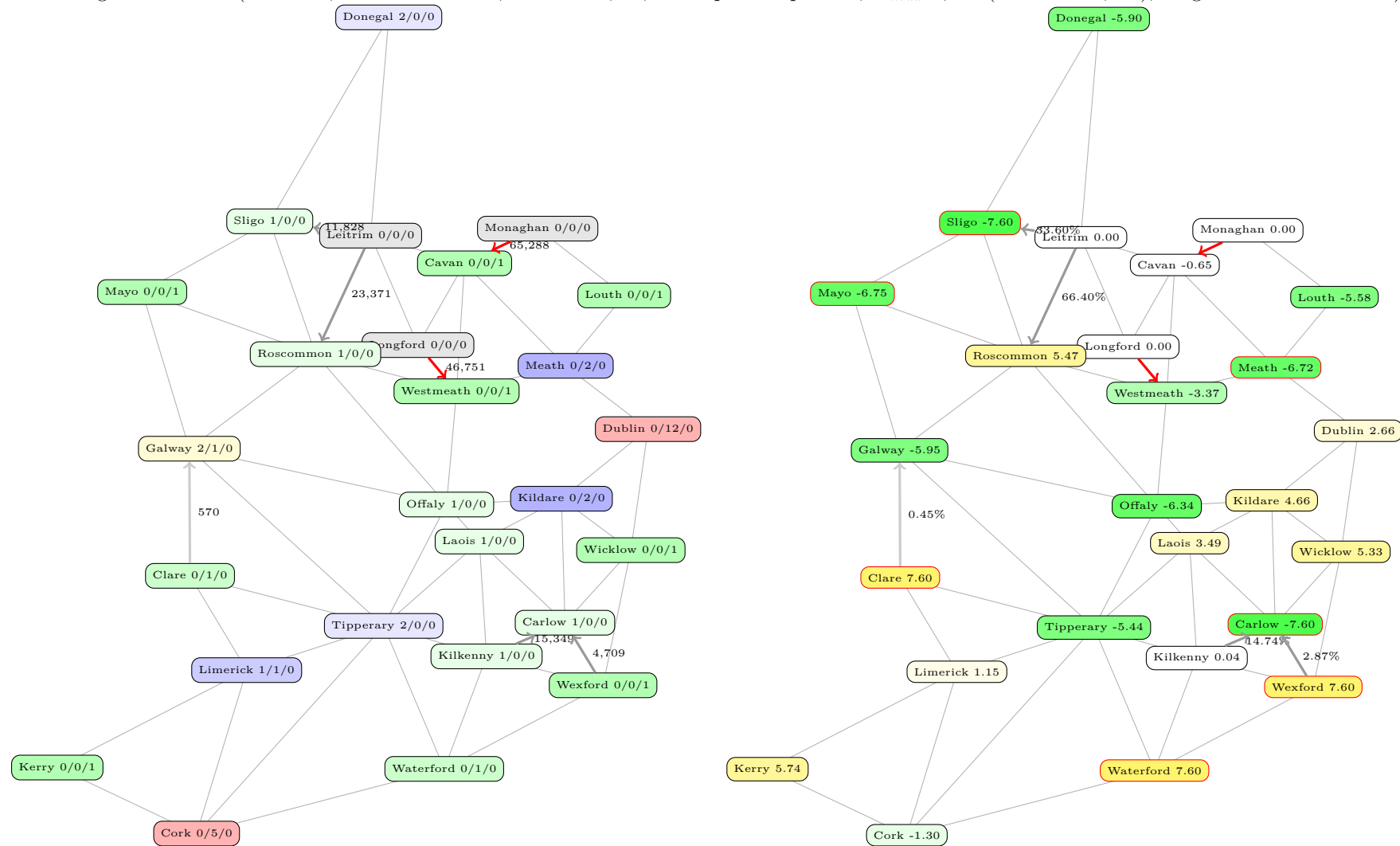
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol44 | 174 | 2,250 | 7.60 | 15.21 | 27,342.00 | 31,842.00 | 29,656.56 | 1,868,913.15 | 3.94 | 7 | 167,866 | 45 | 13/25/7 | 3.87 | Optimal | 0.88 | 0.0000 |

Table 132: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 20,058 | 82,026 | 1 | 1/0/0 | 3 | 27,342.00 | -7.60 |
| Cavan | 81,704 | 2.76 | 0 | 65,288 | 146,992 | 1 | 0/0/1 | 5 | 29,398.40 | -0.65 |
| Clare | 127,938 | 4.32 | 570 | 0 | 127,368 | 1 | 0/1/0 | 4 | 31,842.00 | 7.60 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 5 | 0/5/0 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 12 | 0/12/0 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 570 | 278,307 | 3 | 2/1/0 | 10 | 27,830.70 | -5.95 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/2/0 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 15,349 | 0 | 88,811 | 1 | 1/0/0 | 3 | 29,603.67 | 0.04 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 46,751 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Louth | 139,703 | 4.72 | 0 | 0 | 139,703 | 1 | 0/0/1 | 5 | 27,940.60 | -5.58 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 0/2/0 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 65,288 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 23,371 | 93,630 | 1 | 1/0/0 | 3 | 31,210.00 | 5.47 |
| Sligo | 70,198 | 2.37 | 0 | 11,828 | 82,026 | 1 | 1/0/0 | 3 | 27,342.00 | -7.60 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 46,751 | 142,972 | 1 | 0/0/1 | 5 | 28,594.40 | -3.37 |
| Wexford | 163,919 | 5.54 | 4,709 | 0 | 159,210 | 1 | 0/0/1 | 5 | 31,842.00 | 7.60 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 133: 7 Transfers (Total 167866) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 15,349 | 14.74 |
| Longford | Westmeath | 46,751 | 100.00 |
| Wexford | Carlow | 4,709 | 2.87 |
| Clare | Galway | 570 | 0.45 |
| Leitrim | Roscommon | 23,371 | 66.40 |
| Leitrim | Sligo | 11,828 | 33.60 |
| Monaghan | Cavan | 65,288 | 100.00 |

Figure 45: Sol44 (174 seats, 45 constituencies, 7 transfers, 29,656.56 persons per TD, Δ_{max} 2,250 (7.60% of 29,592), weighted variation 3.94%)

3.45 Solution Sol45

Table 134: Solution 45

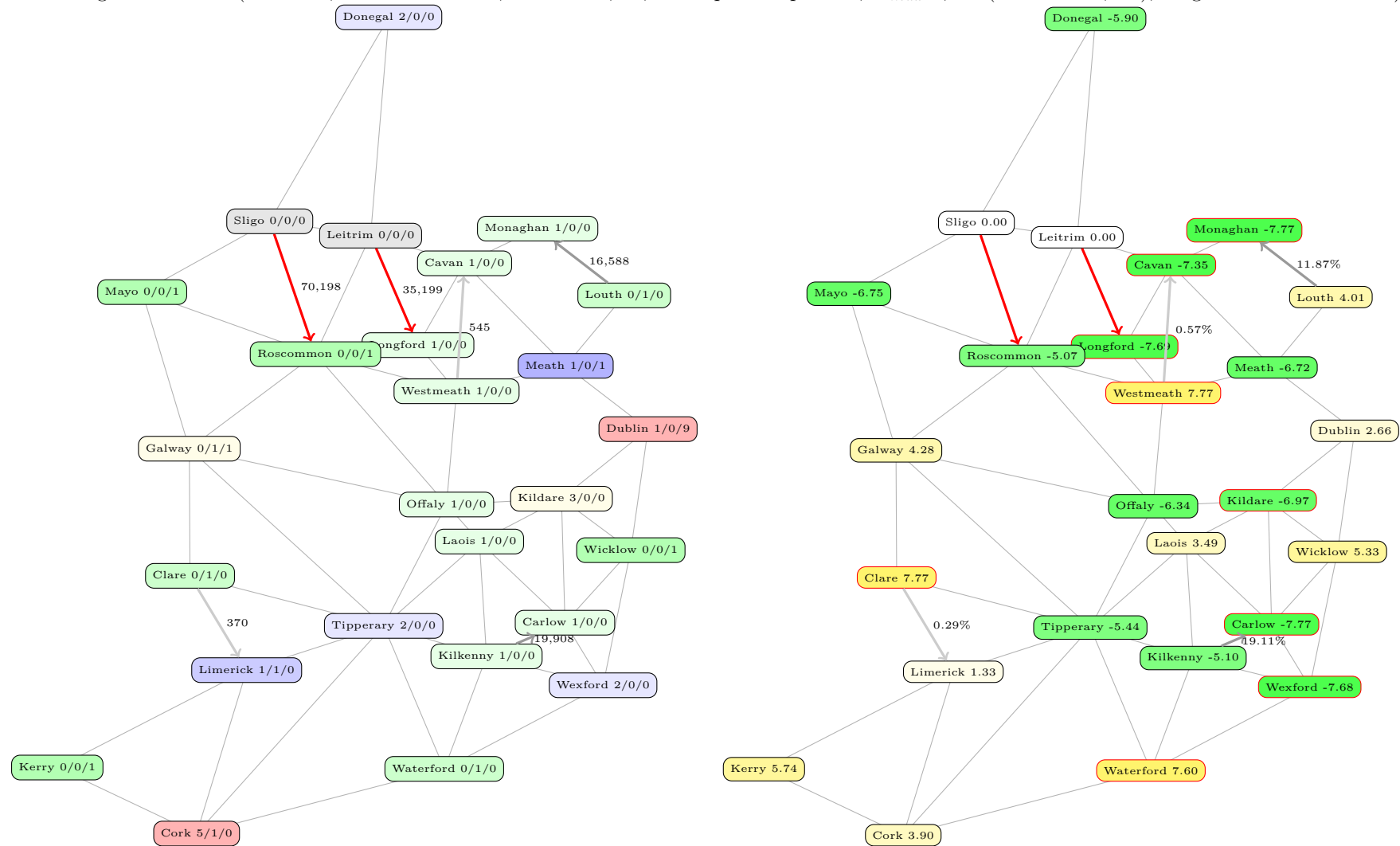
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol45 | 174 | 2,300 | 7.77 | 15.54 | 27,292.00 | 31,892.00 | 29,672.03 | 2,293,168.82 | 4.58 | 6 | 142,808 | 46 | 25/6/15 | 3.78 | Optimal | 0.85 | 0.0060 |

Table 135: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 19,908 | 81,876 | 1 | 1/0/0 | 3 | 27,292.00 | -7.77 |
| Cavan | 81,704 | 2.76 | 0 | 545 | 82,249 | 1 | 1/0/0 | 3 | 27,416.33 | -7.35 |
| Clare | 127,938 | 4.32 | 370 | 0 | 127,568 | 1 | 0/1/0 | 4 | 31,892.00 | 7.77 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/1/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 1/0/9 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 2 | 0/1/1 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 3 | 3/0/0 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 19,908 | 0 | 84,252 | 1 | 1/0/0 | 3 | 28,084.00 | -5.10 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 370 | 209,906 | 2 | 1/1/0 | 7 | 29,986.57 | 1.33 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 16,588 | 0 | 123,115 | 1 | 0/1/0 | 4 | 30,778.75 | 4.01 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 16,588 | 81,876 | 1 | 1/0/0 | 3 | 27,292.00 | -7.77 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 545 | 0 | 95,676 | 1 | 1/0/0 | 3 | 31,892.00 | 7.77 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 136: 6 Transfers (Total 142808) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,908 | 19.11 |
| Louth | Monaghan | 16,588 | 11.87 |
| Westmeath | Cavan | 545 | 0.57 |
| Clare | Limerick | 370 | 0.29 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 46: Sol45 (174 seats, 46 constituencies, 6 transfers, 29,672.03 persons per TD, Δ_{max} 2,300 (7.77% of 29,592), weighted variation 4.58%)

3.46 Solution Sol46

Table 137: Solution 46

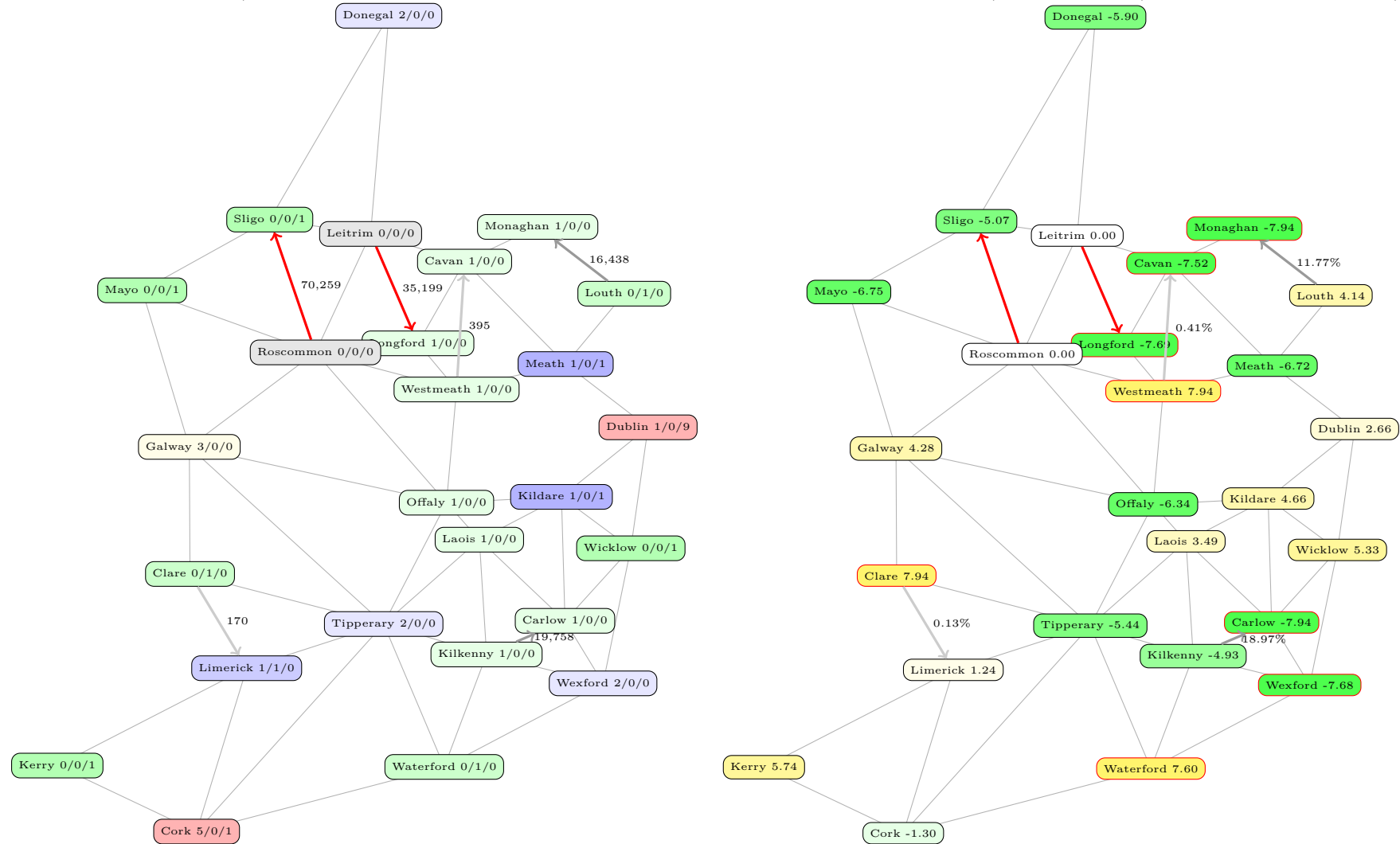
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol46 | 174 | 2,350 | 7.94 | 15.88 | 27,242.00 | 31,942.00 | 29,663.90 | 2,067,264.31 | 4.19 | 6 | 142,219 | 46 | 26/4/16 | 3.78 | Optimal | 0.46 | 0.0088 |

Table 138: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 19,758 | 81,726 | 1 | 1/0/0 | 3 | 27,242.00 | -7.94 |
| Cavan | 81,704 | 2.76 | 0 | 395 | 82,099 | 1 | 1/0/0 | 3 | 27,366.33 | -7.52 |
| Clare | 127,938 | 4.32 | 170 | 0 | 127,768 | 1 | 0/1/0 | 4 | 31,942.00 | 7.94 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/0/1 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 1/0/9 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 19,758 | 0 | 84,402 | 1 | 1/0/0 | 3 | 28,134.00 | -4.93 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 170 | 209,706 | 2 | 1/1/0 | 7 | 29,958.00 | 1.24 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 16,438 | 0 | 123,265 | 1 | 0/1/0 | 4 | 30,816.25 | 4.14 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 16,438 | 81,726 | 1 | 1/0/0 | 3 | 27,242.00 | -7.94 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 70,259 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Sligo | 70,198 | 2.37 | 0 | 70,259 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 395 | 0 | 95,826 | 1 | 1/0/0 | 3 | 31,942.00 | 7.94 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 139: 6 Transfers (Total 142219) | | | |
|---------------------------------------|----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,758 | 18.97 |
| Louth | Monaghan | 16,438 | 11.77 |
| Westmeath | Cavan | 395 | 0.41 |
| Clare | Limerick | 170 | 0.13 |
| Leitrim | Longford | 35,199 | 100.00 |
| Roscommon | Sligo | 70,259 | 100.00 |

Figure 47: Sol46 (174 seats, 46 constituencies, 6 transfers, 29,663.90 persons per TD, Δ_{max} 2,350 (7.94% of 29,592), weighted variation 4.19%)

3.47 Solution Sol47

Table 140: Solution 47

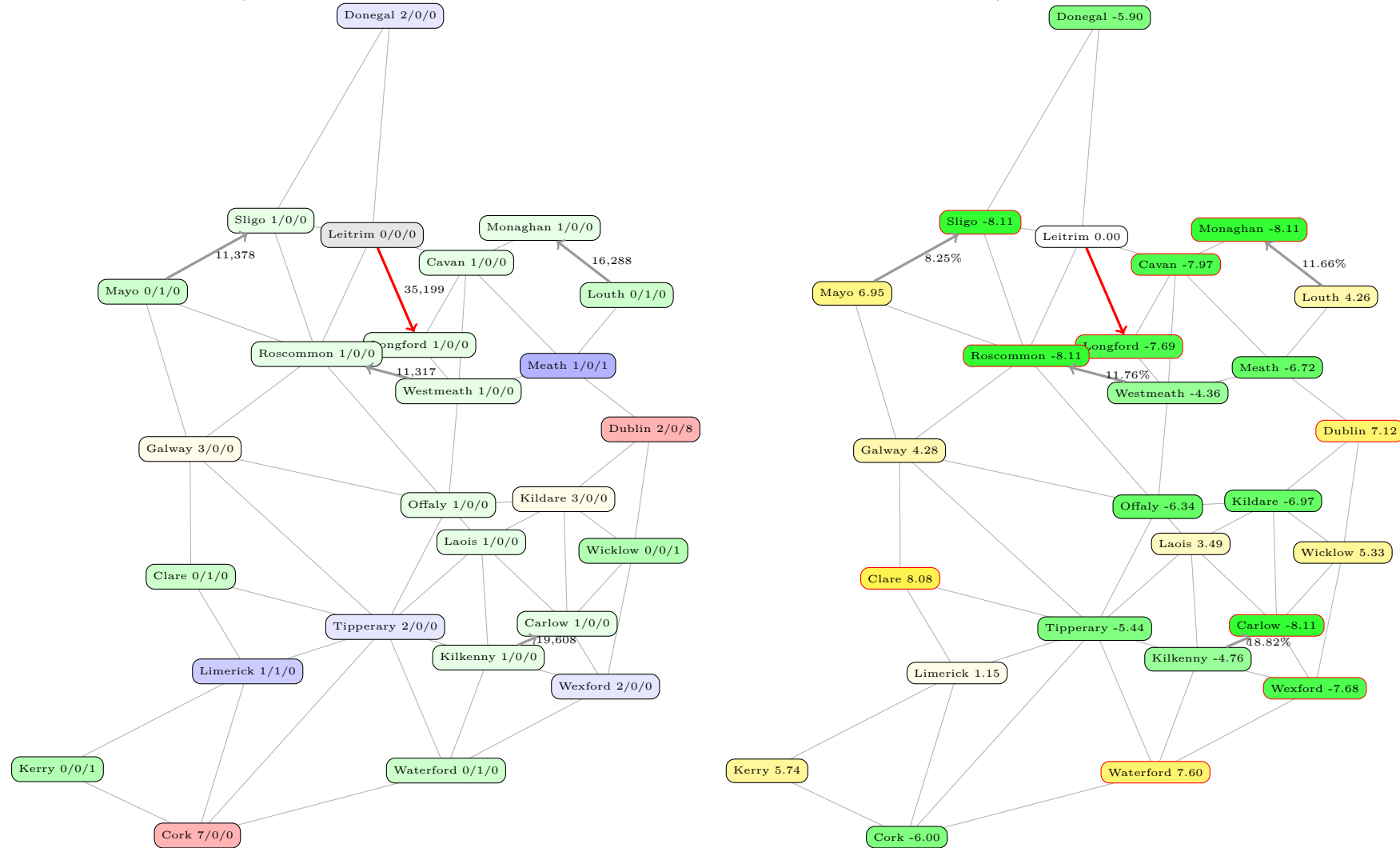
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol47 | 174 | 2,400 | 8.11 | 16.20 | 27,192.00 | 31,984.50 | 29,716.98 | 3,656,166.69 | 6.20 | 5 | 93,790 | 49 | 33/5/11 | 3.55 | Optimal | 0.54 | 0.0070 |

Table 141: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 19,608 | 81,576 | 1 | 1/0/0 | 3 | 27,192.00 | -8.11 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 2/0/8 | 46 | 31,699.00 | 7.12 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 3 | 3/0/0 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 19,608 | 0 | 84,552 | 1 | 1/0/0 | 3 | 28,184.00 | -4.76 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 16,288 | 0 | 123,415 | 1 | 0/1/0 | 4 | 30,853.75 | 4.26 |
| Mayo | 137,970 | 4.66 | 11,378 | 0 | 126,592 | 1 | 0/1/0 | 4 | 31,648.00 | 6.95 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 16,288 | 81,576 | 1 | 1/0/0 | 3 | 27,192.00 | -8.11 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 11,317 | 81,576 | 1 | 1/0/0 | 3 | 27,192.00 | -8.11 |
| Sligo | 70,198 | 2.37 | 0 | 11,378 | 81,576 | 1 | 1/0/0 | 3 | 27,192.00 | -8.11 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 11,317 | 0 | 84,904 | 1 | 1/0/0 | 3 | 28,301.33 | -4.36 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 142: 5 Transfers (Total 93790) | | | |
|--------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,608 | 18.82 |
| Louth | Monaghan | 16,288 | 11.66 |
| Westmeath | Roscommon | 11,317 | 11.76 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Sligo | 11,378 | 8.25 |

Figure 48: Sol47 (174 seats, 49 constituencies, 5 transfers, 29,716.98 persons per TD, Δ_{max} 2,400 (8.11% of 29,592), weighted variation 6.20%)

3.48 Solution Sol48

Table 143: Solution 48

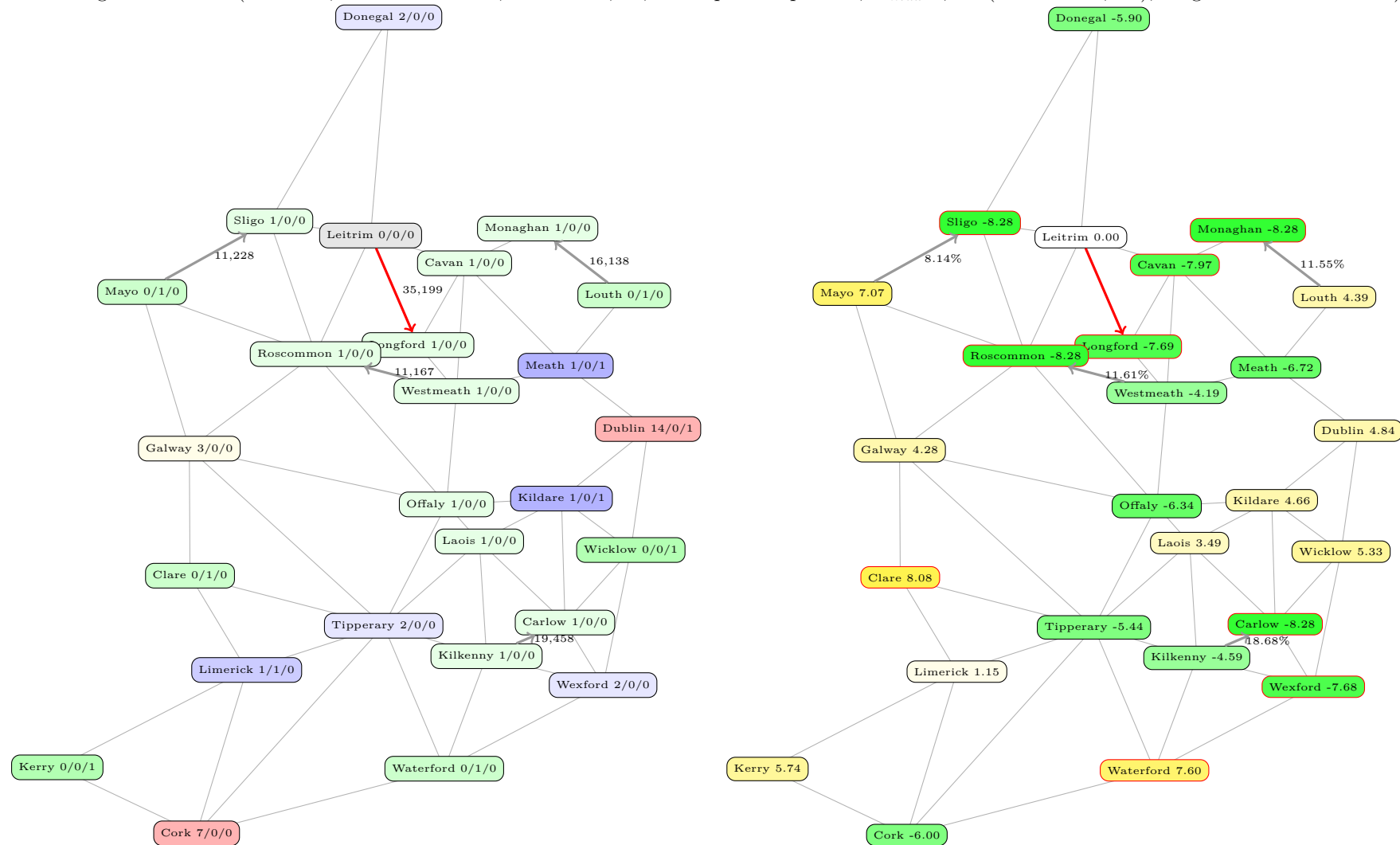
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol48 | 174 | 2,450 | 8.28 | 16.36 | 27,142.00 | 31,984.50 | 29,692.19 | 2,889,530.54 | 5.45 | 5 | 93,190 | 53 | 43/5/5 | 3.28 | Optimal | 0.44 | 0.0000 |

Table 144: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 19,458 | 81,426 | 1 | 1/0/0 | 3 | 27,142.00 | -8.28 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 15 | 14/0/1 | 47 | 31,024.55 | 4.84 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 19,458 | 0 | 84,702 | 1 | 1/0/0 | 3 | 28,234.00 | -4.59 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 16,138 | 0 | 123,565 | 1 | 0/1/0 | 4 | 30,891.25 | 4.39 |
| Mayo | 137,970 | 4.66 | 11,228 | 0 | 126,742 | 1 | 0/1/0 | 4 | 31,685.50 | 7.07 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 16,138 | 81,426 | 1 | 1/0/0 | 3 | 27,142.00 | -8.28 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 11,167 | 81,426 | 1 | 1/0/0 | 3 | 27,142.00 | -8.28 |
| Sligo | 70,198 | 2.37 | 0 | 11,228 | 81,426 | 1 | 1/0/0 | 3 | 27,142.00 | -8.28 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 11,167 | 0 | 85,054 | 1 | 1/0/0 | 3 | 28,351.33 | -4.19 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 145: 5 Transfers (Total 93190) | | | |
|--------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,458 | 18.68 |
| Louth | Monaghan | 16,138 | 11.55 |
| Westmeath | Roscommon | 11,167 | 11.61 |
| Leitrim | Longford | 35,199 | 100.00 |
| Mayo | Sligo | 11,228 | 8.14 |

Figure 49: Sol48 (174 seats, 53 constituencies, 5 transfers, 29,692.19 persons per TD, Δ_{max} 2,450 (8.28% of 29,592), weighted variation 5.45%)

3.49 Solution Sol49

Table 146: Solution 49

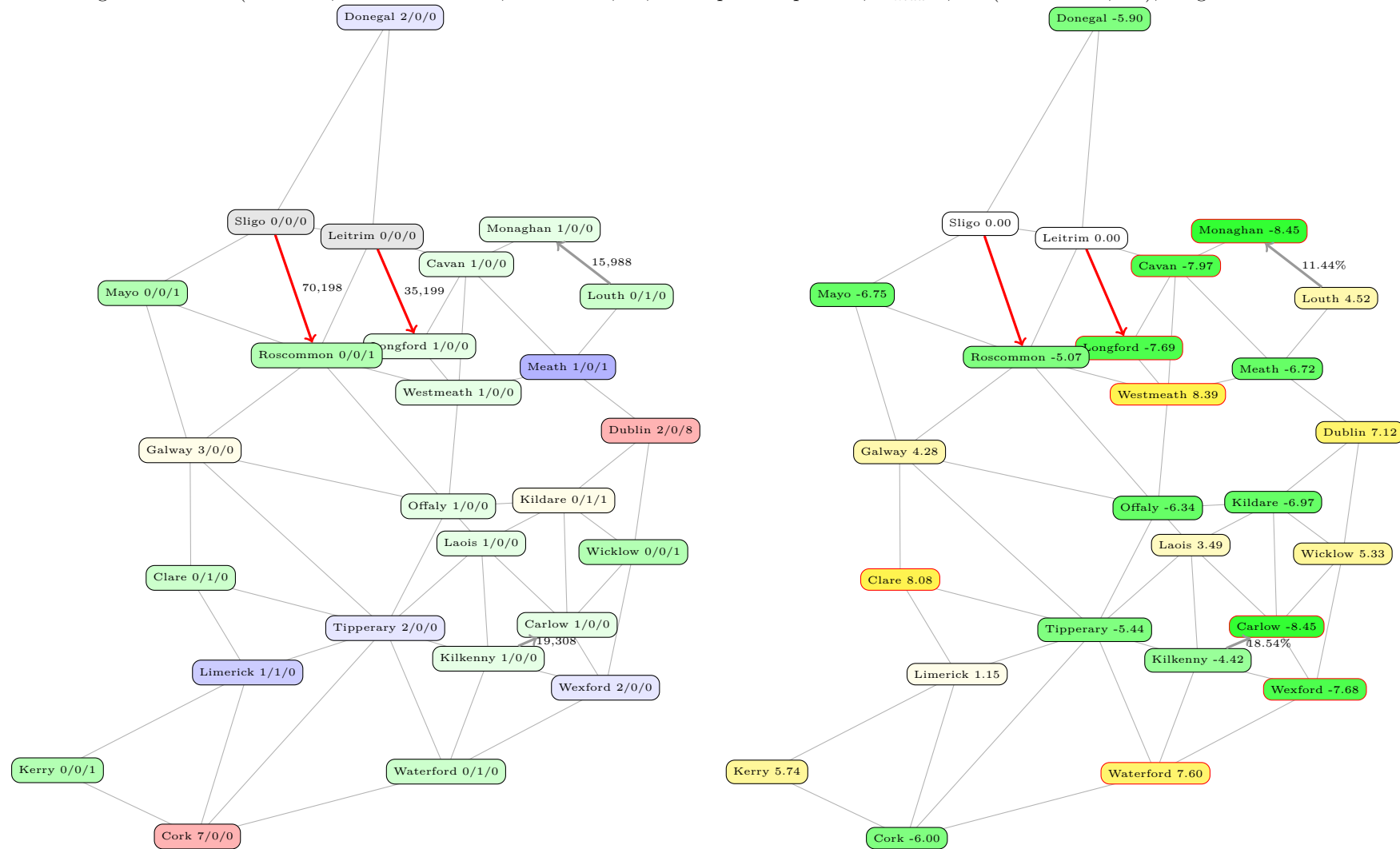
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol49 | 174 | 2,500 | 8.45 | 16.83 | 27,092.00 | 32,073.67 | 29,716.23 | 3,641,141.72 | 6.12 | 4 | 140,693 | 47 | 28/5/14 | 3.70 | Optimal | 0.27 | 0.0000 |

Table 147: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 19,308 | 81,276 | 1 | 1/0/0 | 3 | 27,092.00 | -8.45 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 2/0/8 | 46 | 31,699.00 | 7.12 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 0/1/1 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 19,308 | 0 | 84,852 | 1 | 1/0/0 | 3 | 28,284.00 | -4.42 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 15,988 | 0 | 123,715 | 1 | 0/1/0 | 4 | 30,928.75 | 4.52 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 15,988 | 81,276 | 1 | 1/0/0 | 3 | 27,092.00 | -8.45 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 148: 4 Transfers (Total 140693) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,308 | 18.54 |
| Louth | Monaghan | 15,988 | 11.44 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 50: Sol49 (174 seats, 47 constituencies, 4 transfers, 29,716.23 persons per TD, Δ_{max} 2,500 (8.45% of 29,592), weighted variation 6.12%)

3.50 Solution Sol50

Table 149: Solution 50

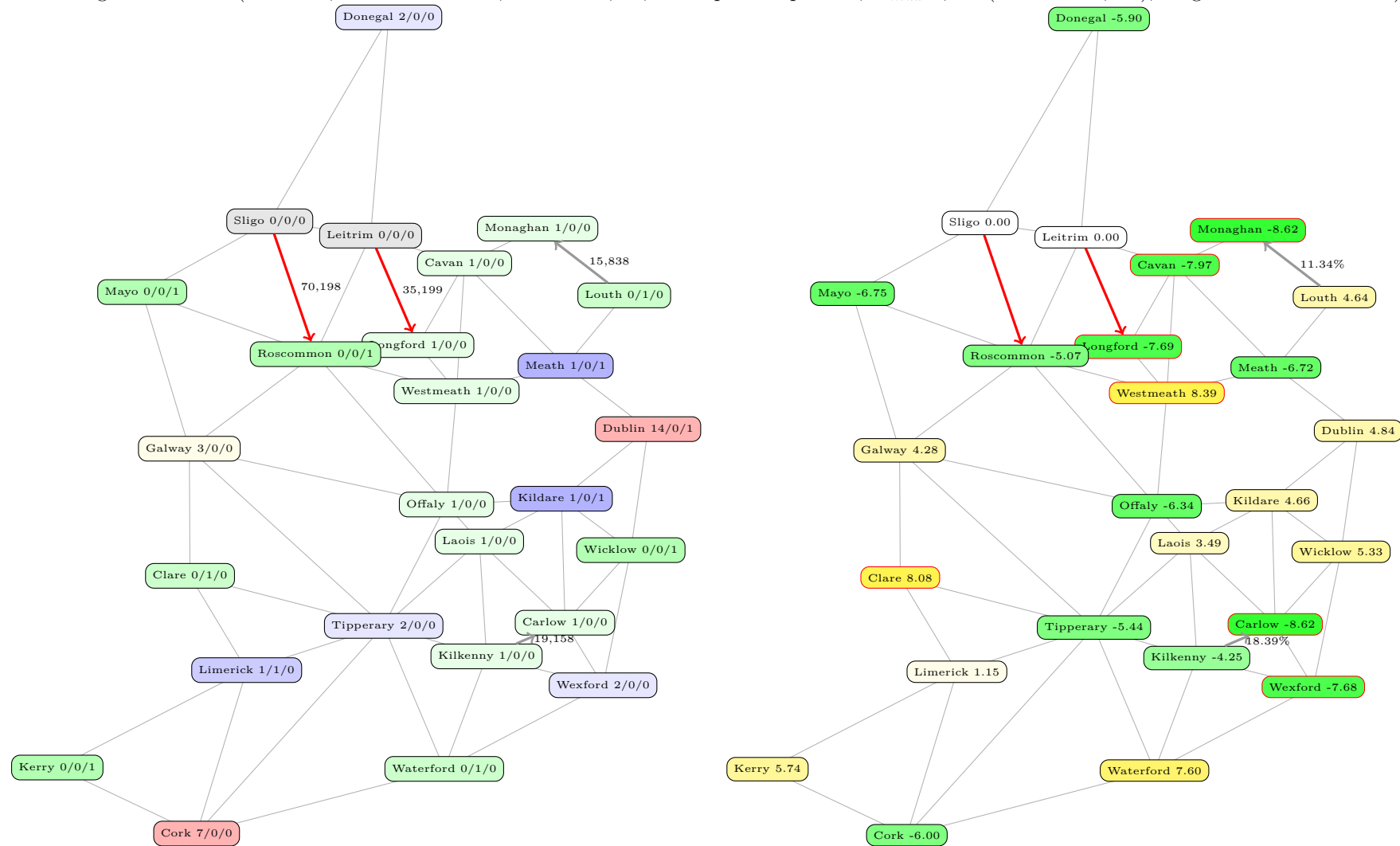
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol50 | 174 | 2,550 | 8.62 | 17.00 | 27,042.00 | 32,073.67 | 29,691.13 | 2,865,838.34 | 5.37 | 4 | 140,393 | 52 | 41/4/7 | 3.35 | Optimal | 0.26 | 0.0068 |

Table 150: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 19,158 | 81,126 | 1 | 1/0/0 | 3 | 27,042.00 | -8.62 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 15 | 14/0/1 | 47 | 31,024.55 | 4.84 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 19,158 | 0 | 85,002 | 1 | 1/0/0 | 3 | 28,334.00 | -4.25 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 15,838 | 0 | 123,865 | 1 | 0/1/0 | 4 | 30,966.25 | 4.64 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 15,838 | 81,126 | 1 | 1/0/0 | 3 | 27,042.00 | -8.62 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 151: 4 Transfers (Total 140393) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,158 | 18.39 |
| Louth | Monaghan | 15,838 | 11.34 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 51: Sol50 (174 seats, 52 constituencies, 4 transfers, 29,691.13 persons per TD, Δ_{max} 2,550 (8.62% of 29,592), weighted variation 5.37%)

3.51 Solution Sol51

Table 152: Solution 51

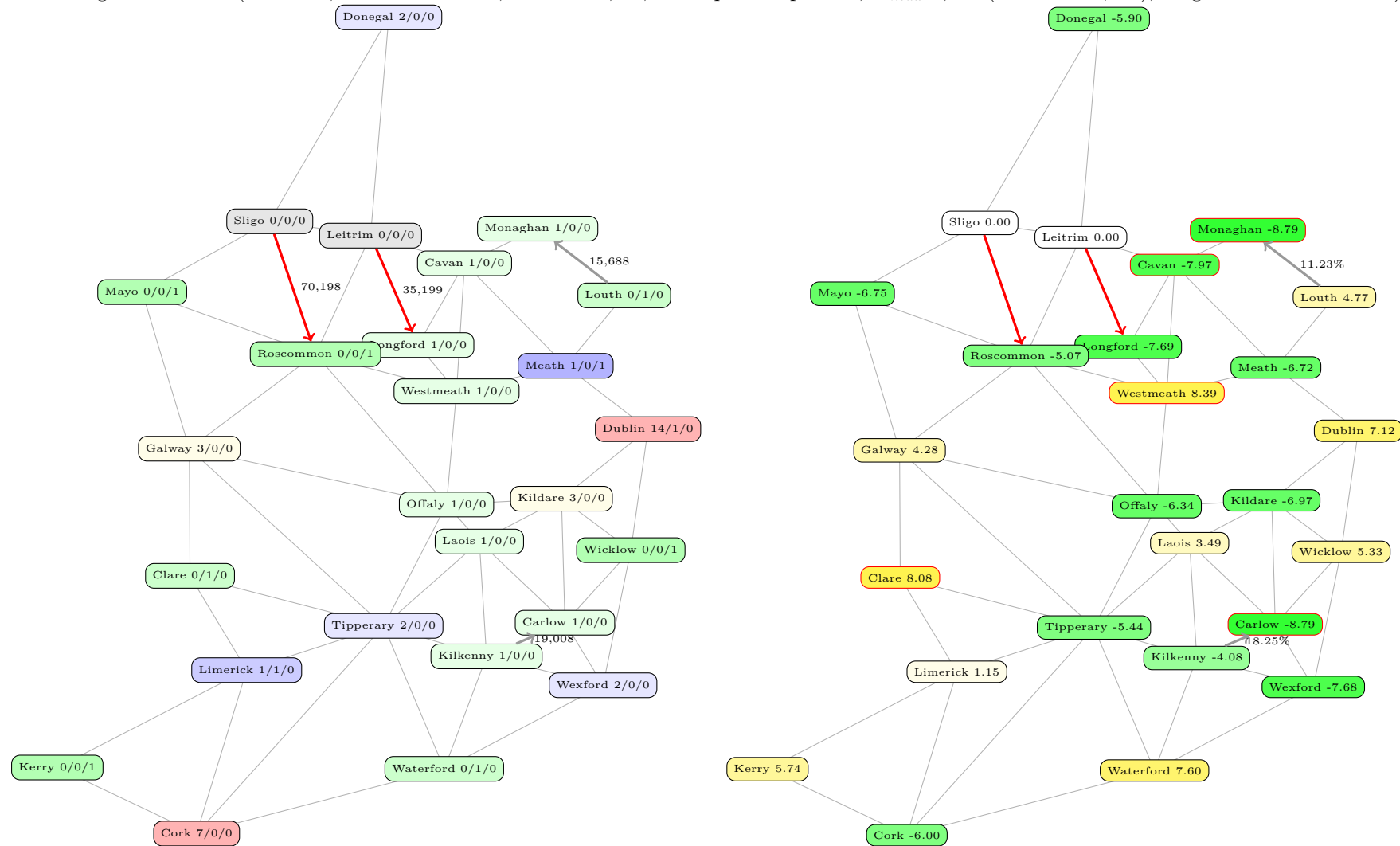
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol51 | 174 | 2,600 | 8.79 | 17.17 | 26,992.00 | 32,073.67 | 29,716.84 | 3,657,310.49 | 6.13 | 4 | 140,093 | 53 | 43/5/5 | 3.28 | Optimal | 0.30 | 0.0000 |

Table 153: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 19,008 | 80,976 | 1 | 1/0/0 | 3 | 26,992.00 | -8.79 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 15 | 14/1/0 | 46 | 31,699.00 | 7.12 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 3 | 3/0/0 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 19,008 | 0 | 85,152 | 1 | 1/0/0 | 3 | 28,384.00 | -4.08 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 15,688 | 0 | 124,015 | 1 | 0/1/0 | 4 | 31,003.75 | 4.77 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 15,688 | 80,976 | 1 | 1/0/0 | 3 | 26,992.00 | -8.79 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 154: 4 Transfers (Total 140093) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 19,008 | 18.25 |
| Louth | Monaghan | 15,688 | 11.23 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 52: Sol51 (174 seats, 53 constituencies, 4 transfers, 29,716.84 persons per TD, Δ_{max} 2,600 (8.79% of 29,592), weighted variation 6.13%)

3.52 Solution Sol52

Table 155: Solution 52

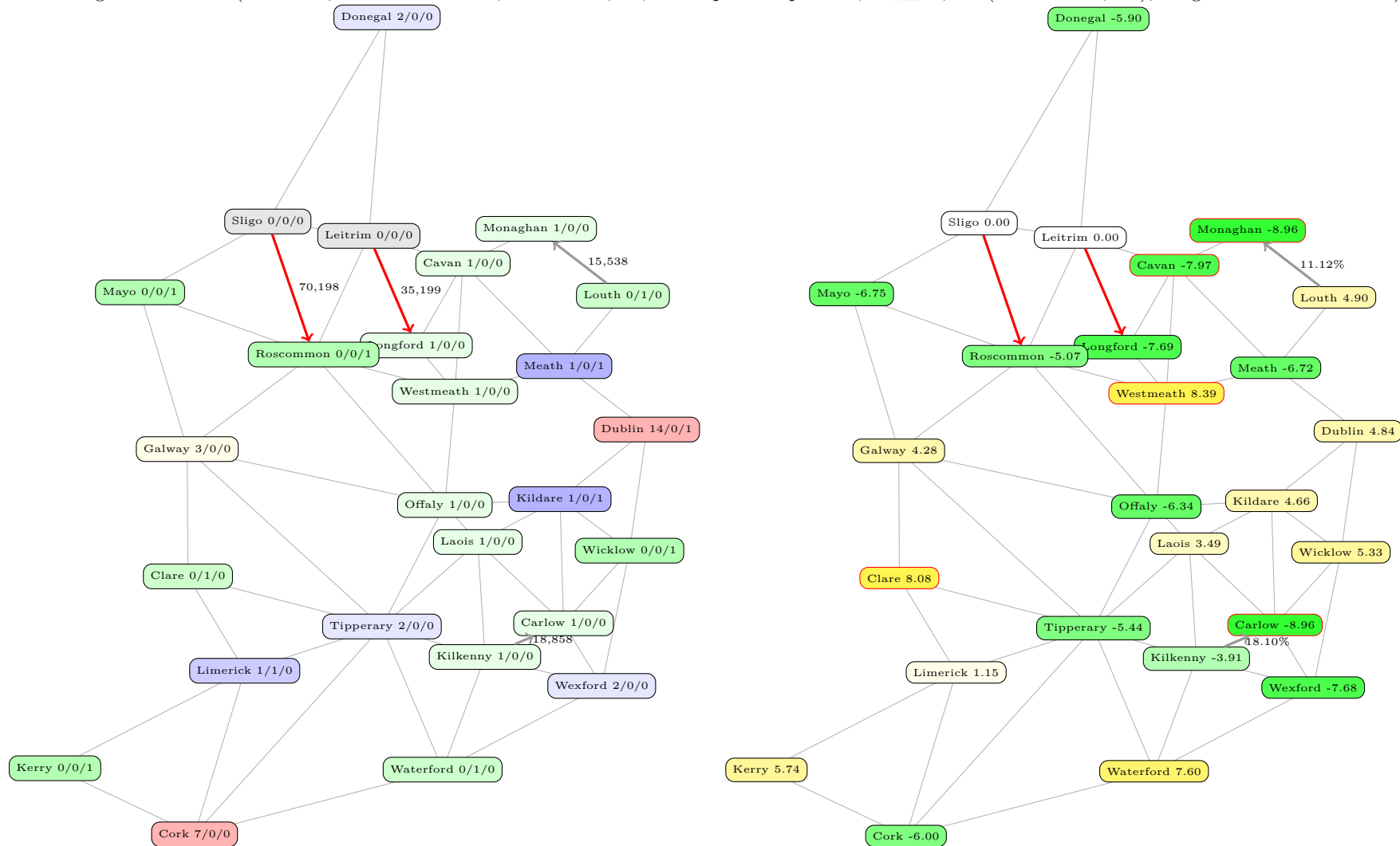
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|--------|------------------|-----------------|----------|-------------|
| Sol52 | 174 | 2,650 | 8.96 | 17.34 | 26,942.00 | 32,073.67 | 29,691.76 | 2,882,586.49 | 5.38 | 4 | 139,793 | 52 | 41/4/7 | 3.35 | Optimal | 0.23 | 0.0000 |

Table 156: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 18,858 | 80,826 | 1 | 1/0/0 | 3 | 26,942.00 | -8.96 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 7 | 7/0/0 | 21 | 27,816.95 | -6.00 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 15 | 14/0/1 | 47 | 31,024.55 | 4.84 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 18,858 | 0 | 85,302 | 1 | 1/0/0 | 3 | 28,434.00 | -3.91 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 15,538 | 0 | 124,165 | 1 | 0/1/0 | 4 | 31,041.25 | 4.90 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 15,538 | 80,826 | 1 | 1/0/0 | 3 | 26,942.00 | -8.96 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 157: 4 Transfers (Total 139793) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 18,858 | 18.10 |
| Louth | Monaghan | 15,538 | 11.12 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 53: Sol52 (174 seats, 52 constituencies, 4 transfers, 29,691.76 persons per TD, Δ_{max} 2,650 (8.96% of 29,592), weighted variation 5.38%)

3.53 Solution Sol53

Table 158: Solution 53

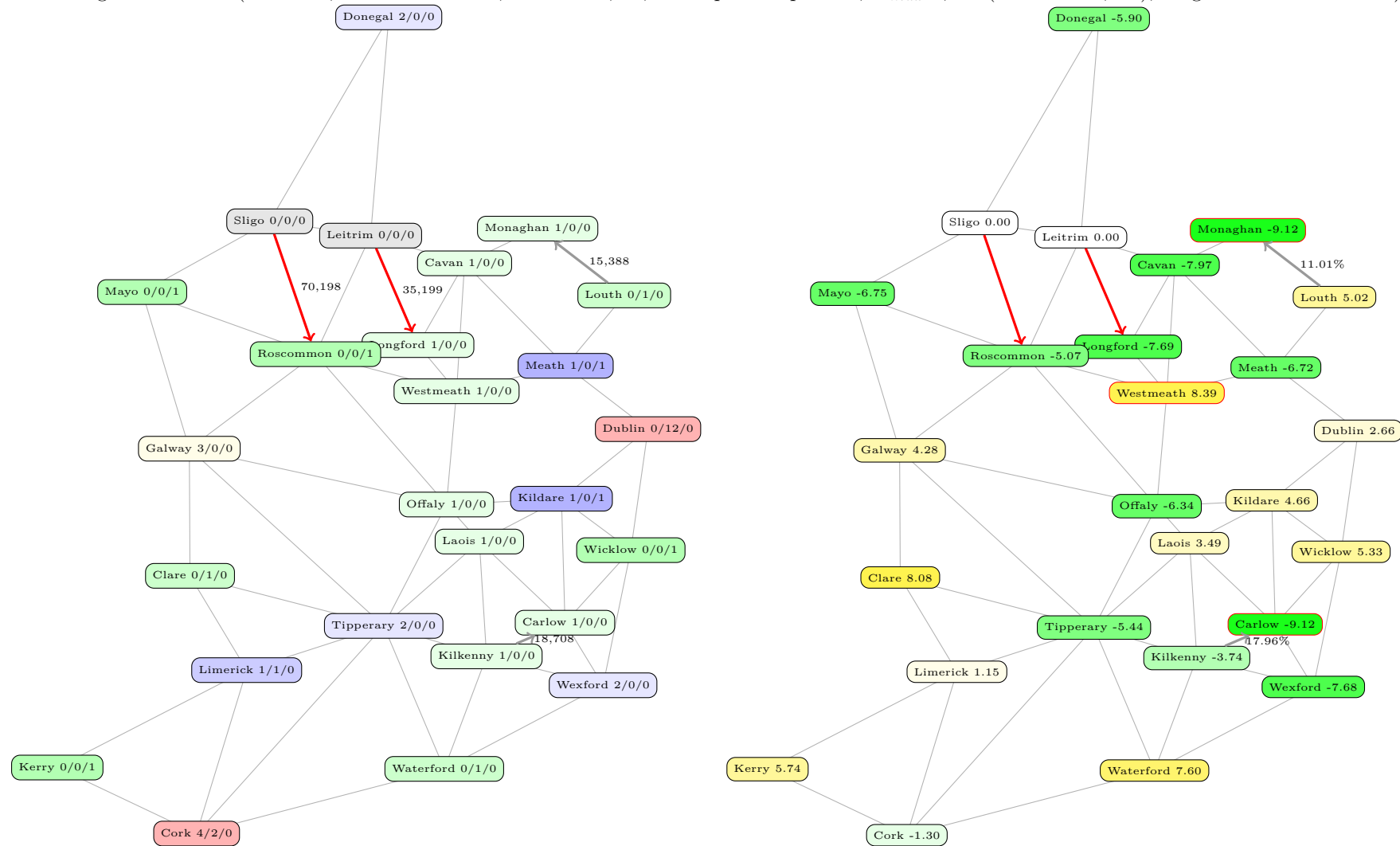
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol53 | 174 | 2,700 | 9.12 | 17.51 | 26,892.00 | 32,073.67 | 29,666.84 | 2,148,974.61 | 4.23 | 4 | 139,493 | 48 | 24/18/6 | 3.63 | Optimal | 0.31 | 0.0000 |

Table 159: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 18,708 | 80,676 | 1 | 1/0/0 | 3 | 26,892.00 | -9.12 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 4/2/0 | 20 | 29,207.80 | -1.30 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 12 | 0/12/0 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 18,708 | 0 | 85,452 | 1 | 1/0/0 | 3 | 28,484.00 | -3.74 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 15,388 | 0 | 124,315 | 1 | 0/1/0 | 4 | 31,078.75 | 5.02 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 15,388 | 80,676 | 1 | 1/0/0 | 3 | 26,892.00 | -9.12 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 160: 4 Transfers (Total 139493) | | | |
|---------------------------------------|-----------|--------|-----------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 18,708 | 17.96 |
| Louth | Monaghan | 15,388 | 11.01 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 54: Sol53 (174 seats, 48 constituencies, 4 transfers, 29,666.84 persons per TD, Δ_{max} 2,700 (9.12% of 29,592), weighted variation 4.23%)

3.54 Solution Sol54

Table 161: Solution 54

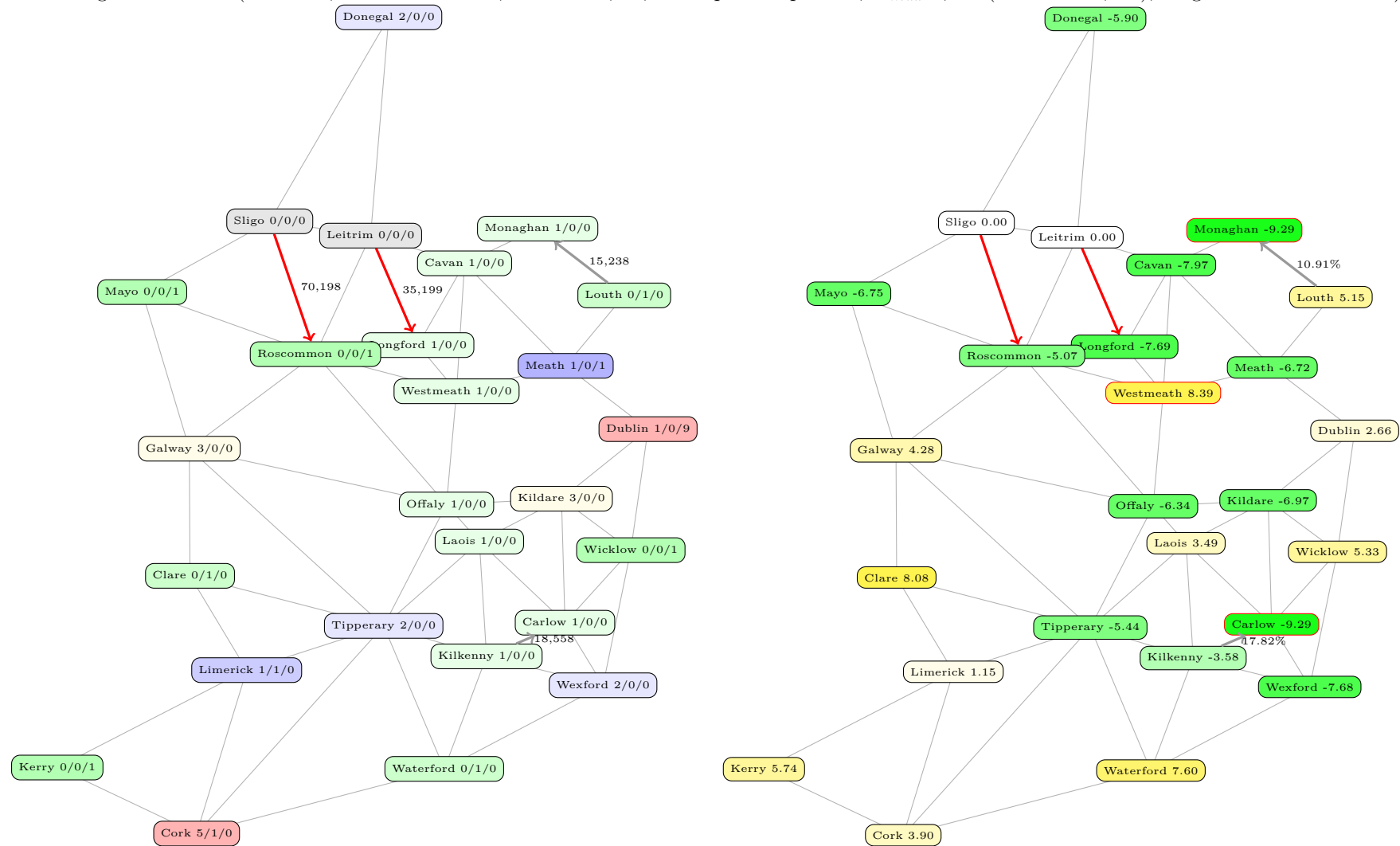
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol54 | 174 | 2,750 | 9.29 | 17.68 | 26,842.00 | 32,073.67 | 29,675.99 | 2,403,638.09 | 4.64 | 4 | 139,193 | 47 | 28/5/14 | 3.70 | Optimal | 0.25 | 0.0000 |

Table 162: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 18,558 | 80,526 | 1 | 1/0/0 | 3 | 26,842.00 | -9.29 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/1/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 1/0/9 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 3 | 3/0/0 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 18,558 | 0 | 85,602 | 1 | 1/0/0 | 3 | 28,534.00 | -3.58 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 15,238 | 0 | 124,465 | 1 | 0/1/0 | 4 | 31,116.25 | 5.15 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 15,238 | 80,526 | 1 | 1/0/0 | 3 | 26,842.00 | -9.29 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 163: 4 Transfers (Total 139193) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 18,558 | 17.82 |
| Louth | Monaghan | 15,238 | 10.91 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 55: Sol54 (174 seats, 47 constituencies, 4 transfers, 29,675.99 persons per TD, Δ_{max} 2,750 (9.29% of 29,592), weighted variation 4.64%)

3.55 Solution Sol55

Table 164: Solution 55

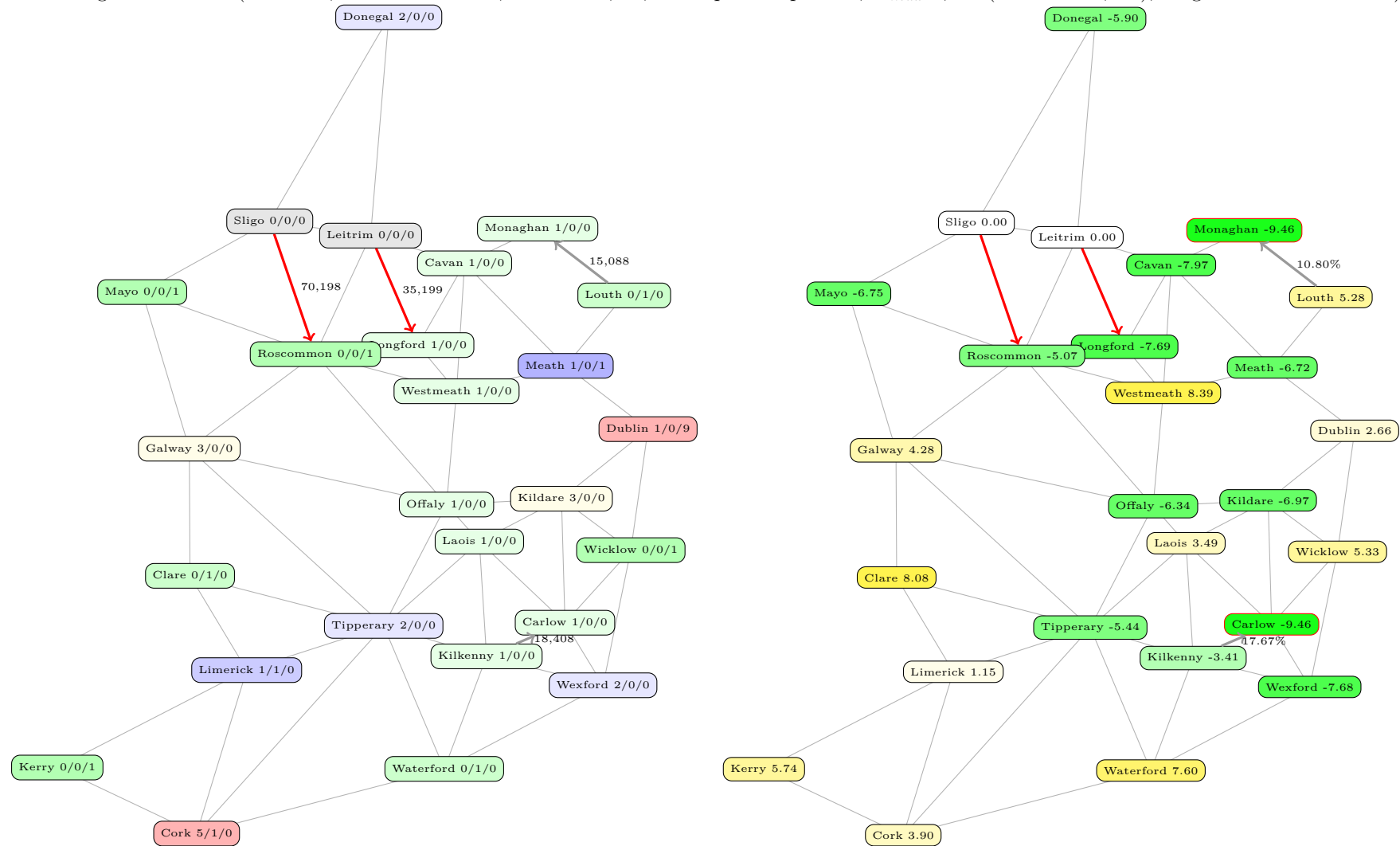
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol55 | 174 | 2,800 | 9.46 | 17.85 | 26,792.00 | 32,073.67 | 29,676.34 | 2,412,982.03 | 4.65 | 4 | 138,893 | 47 | 28/5/14 | 3.70 | Optimal | 0.30 | 0.0000 |

Table 165: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 18,408 | 80,376 | 1 | 1/0/0 | 3 | 26,792.00 | -9.46 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 5/1/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 1/0/9 | 48 | 30,378.21 | 2.66 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 3 | 3/0/0 | 9 | 27,530.44 | -6.97 |
| Kilkenny | 104,160 | 3.52 | 18,408 | 0 | 85,752 | 1 | 1/0/0 | 3 | 28,584.00 | -3.41 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 15,088 | 0 | 124,615 | 1 | 0/1/0 | 4 | 31,153.75 | 5.28 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 15,088 | 80,376 | 1 | 1/0/0 | 3 | 26,792.00 | -9.46 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 166: 4 Transfers (Total 138893) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 18,408 | 17.67 |
| Louth | Monaghan | 15,088 | 10.80 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 56: Sol55 (174 seats, 47 constituencies, 4 transfers, 29,676.34 persons per TD, Δ_{max} 2,800 (9.46% of 29,592), weighted variation 4.65%)

3.56 Solution Sol56

Table 167: Solution 56

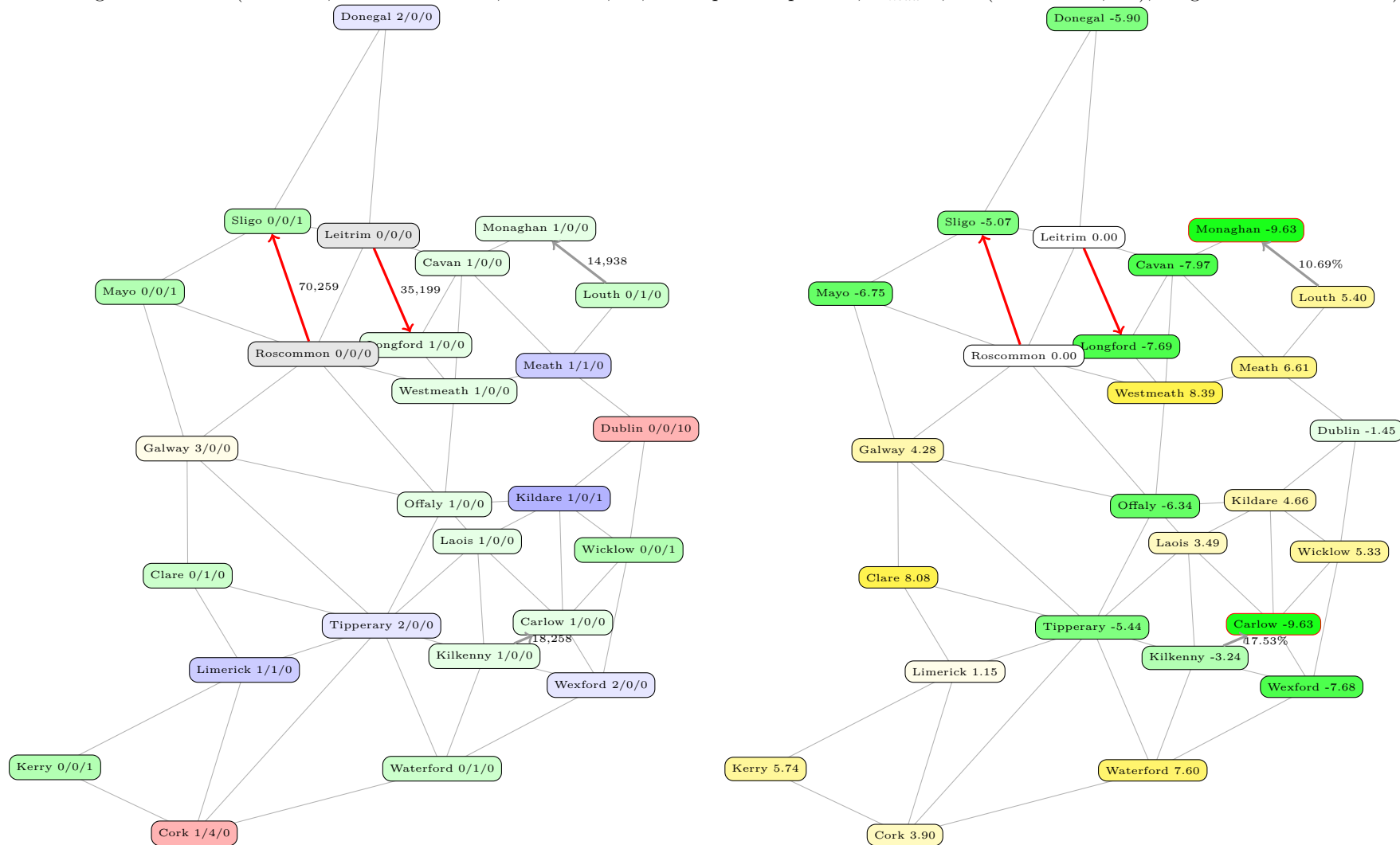
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol56 | 174 | 2,850 | 9.63 | 18.02 | 26,742.00 | 32,073.67 | 29,667.31 | 2,182,475.73 | 4.19 | 4 | 138,654 | 45 | 21/9/15 | 3.87 | Optimal | 0.33 | 0.0015 |

Table 168: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 18,258 | 80,226 | 1 | 1/0/0 | 3 | 26,742.00 | -9.63 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 5 | 1/4/0 | 19 | 30,745.05 | 3.90 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 18,258 | 0 | 85,902 | 1 | 1/0/0 | 3 | 28,634.00 | -3.24 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 14,938 | 0 | 124,765 | 1 | 0/1/0 | 4 | 31,191.25 | 5.40 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/1/0 | 7 | 31,546.57 | 6.61 |
| Monaghan | 65,288 | 2.21 | 0 | 14,938 | 80,226 | 1 | 1/0/0 | 3 | 26,742.00 | -9.63 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 70,259 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Sligo | 70,198 | 2.37 | 0 | 70,259 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 169: 4 Transfers (Total 138654) | | | |
|---------------------------------------|----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 18,258 | 17.53 |
| Louth | Monaghan | 14,938 | 10.69 |
| Leitrim | Longford | 35,199 | 100.00 |
| Roscommon | Sligo | 70,259 | 100.00 |

Figure 57: Sol56 (174 seats, 45 constituencies, 4 transfers, 29,667.31 persons per TD, Δ_{max} 2,850 (9.63% of 29,592), weighted variation 4.19%)

3.57 Solution Sol57

Table 170: Solution 57

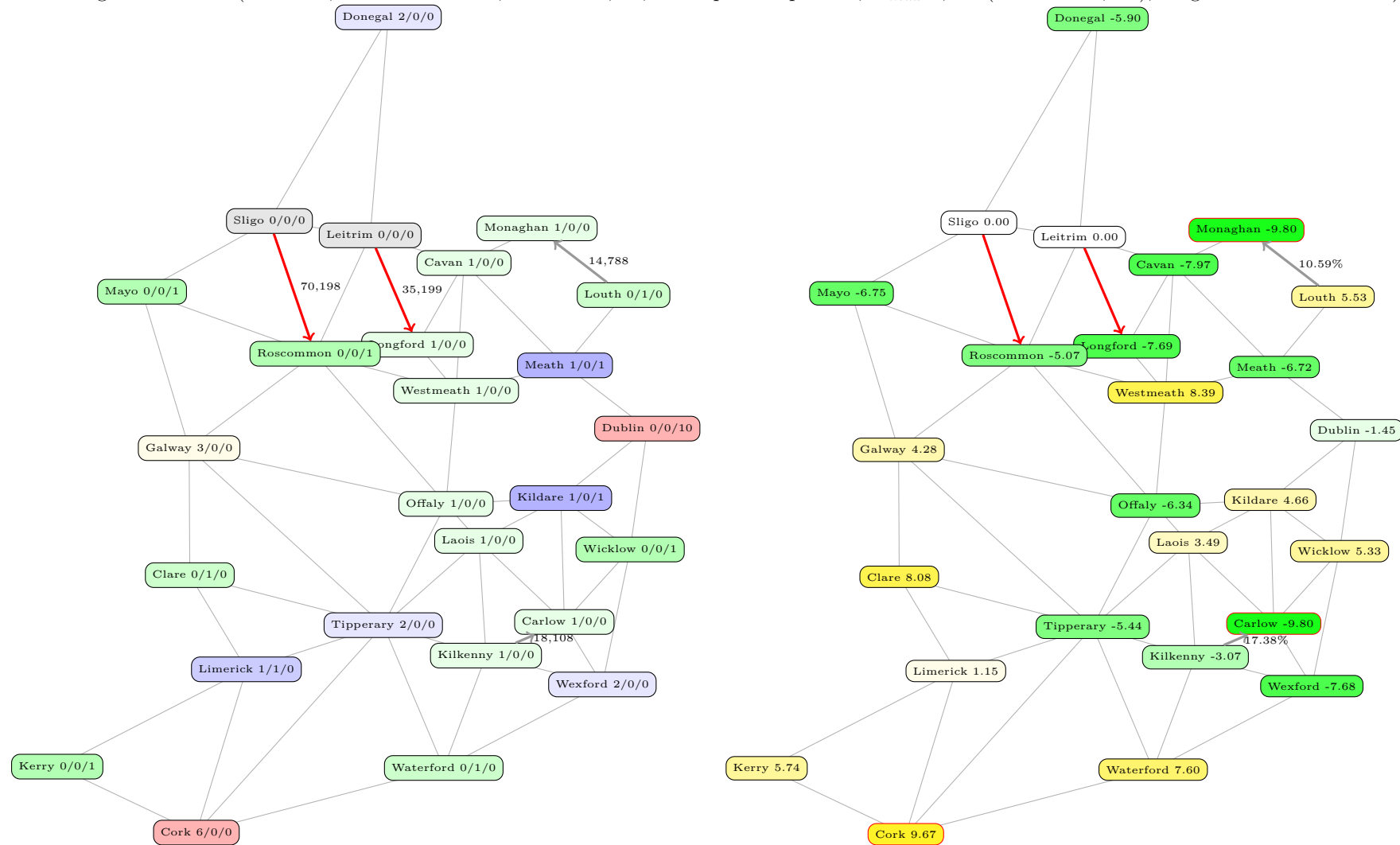
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol57 | 174 | 2,900 | 9.80 | 19.47 | 26,692.00 | 32,453.11 | 29,692.34 | 2,971,656.19 | 4.86 | 4 | 138,293 | 46 | 26/4/16 | 3.78 | Optimal | 0.39 | 0.0000 |

Table 171: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 18,108 | 80,076 | 1 | 1/0/0 | 3 | 26,692.00 | -9.80 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 6/0/0 | 18 | 32,453.11 | 9.67 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 18,108 | 0 | 86,052 | 1 | 1/0/0 | 3 | 28,684.00 | -3.07 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 14,788 | 0 | 124,915 | 1 | 0/1/0 | 4 | 31,228.75 | 5.53 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 14,788 | 80,076 | 1 | 1/0/0 | 3 | 26,692.00 | -9.80 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 172: 4 Transfers (Total 138293) | | | |
|---------------------------------------|-----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 18,108 | 17.38 |
| Louth | Monaghan | 14,788 | 10.59 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 58: Sol57 (174 seats, 46 constituencies, 4 transfers, 29,692.34 persons per TD, Δ_{max} 2,900 (9.80% of 29,592), weighted variation 4.86%)

3.58 Solution Sol58

Table 173: Solution 58

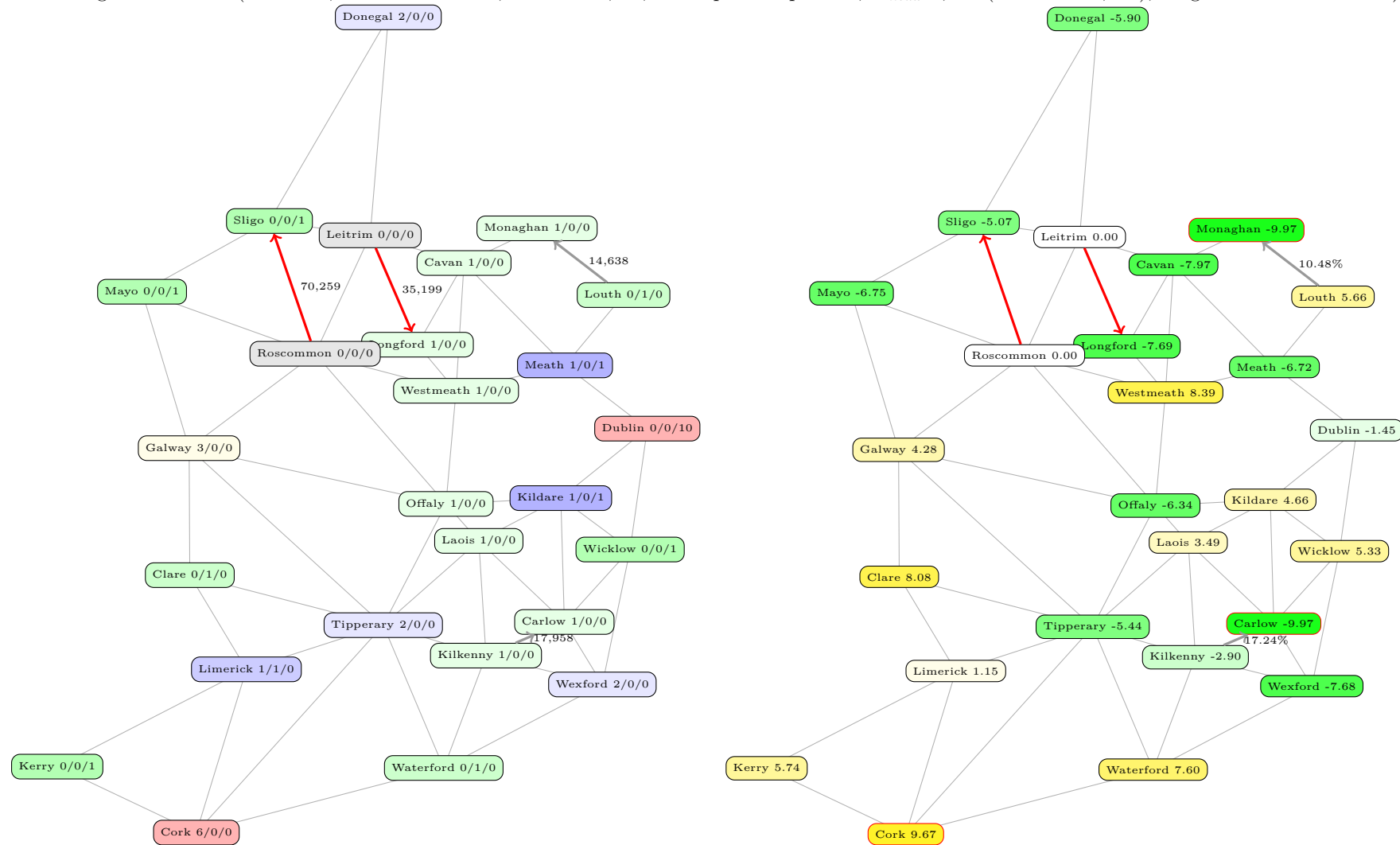
| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol58 | 174 | 2,950 | 9.97 | 19.64 | 26,642.00 | 32,453.11 | 29,692.73 | 2,981,808.66 | 4.86 | 4 | 138,054 | 46 | 26/4/16 | 3.78 | Optimal | 0.37 | 0.0015 |

Table 174: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 17,958 | 79,926 | 1 | 1/0/0 | 3 | 26,642.00 | -9.97 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 6/0/0 | 18 | 32,453.11 | 9.67 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 17,958 | 0 | 86,202 | 1 | 1/0/0 | 3 | 28,734.00 | -2.90 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 14,638 | 0 | 125,065 | 1 | 0/1/0 | 4 | 31,266.25 | 5.66 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 14,638 | 79,926 | 1 | 1/0/0 | 3 | 26,642.00 | -9.97 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 70,259 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Sligo | 70,198 | 2.37 | 0 | 70,259 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|--------------------|-----------------|----------------|-------------------------|--------------------|-----------------|-------------------|------------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 175: 4 Transfers (Total 138054) | | | |
|---------------------------------------|----------|--------|--------------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 17,958 | 17.24 |
| Louth | Monaghan | 14,638 | 10.48 |
| Leitrim | Longford | 35,199 | 100.00 |
| Roscommon | Sligo | 70,259 | 100.00 |

Figure 59: Sol58 (174 seats, 46 constituencies, 4 transfers, 29,692.73 persons per TD, Δ_{max} 2,950 (9.97% of 29,592), weighted variation 4.86%)

3.59 Solution Sol59

Table 176: Solution 59

| Name | K | Delta | Delta Percent | Range Percent | Min E | Max E | Weighted Average | Weighted Variance | Weighted Absolute Variation | Nr Trans | Transferred | Nr Const. | 3/4/5 | Seats Per Const. | Solution Status | Time (s) | Gap Percent |
|-------|-----|-------|---------------|---------------|-----------|-----------|------------------|-------------------|-----------------------------|----------|-------------|-----------|---------|------------------|-----------------|----------|-------------|
| Sol59 | 174 | 3,000 | 10.14 | 19.81 | 26,592.00 | 32,453.11 | 29,693.13 | 2,992,233.81 | 4.87 | 4 | 137,693 | 46 | 26/4/16 | 3.78 | Optimal | 0.39 | 0.0067 |

Table 177: Counties

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Carlow | 61,968 | 2.09 | 0 | 17,808 | 79,776 | 1 | 1/0/0 | 3 | 26,592.00 | -10.14 |
| Cavan | 81,704 | 2.76 | 0 | 0 | 81,704 | 1 | 1/0/0 | 3 | 27,234.67 | -7.97 |
| Clare | 127,938 | 4.32 | 0 | 0 | 127,938 | 1 | 0/1/0 | 4 | 31,984.50 | 8.08 |
| Cork | 584,156 | 19.74 | 0 | 0 | 584,156 | 6 | 6/0/0 | 18 | 32,453.11 | 9.67 |
| Donegal | 167,084 | 5.65 | 0 | 0 | 167,084 | 2 | 2/0/0 | 6 | 27,847.33 | -5.90 |
| Dublin | 1,458,154 | 49.28 | 0 | 0 | 1,458,154 | 10 | 0/0/10 | 50 | 29,163.08 | -1.45 |
| Galway | 277,737 | 9.39 | 0 | 0 | 277,737 | 3 | 3/0/0 | 9 | 30,859.67 | 4.28 |
| Kerry | 156,458 | 5.29 | 0 | 0 | 156,458 | 1 | 0/0/1 | 5 | 31,291.60 | 5.74 |
| Kildare | 247,774 | 8.37 | 0 | 0 | 247,774 | 2 | 1/0/1 | 8 | 30,971.75 | 4.66 |
| Kilkenny | 104,160 | 3.52 | 17,808 | 0 | 86,352 | 1 | 1/0/0 | 3 | 28,784.00 | -2.73 |
| Laois | 91,877 | 3.10 | 0 | 0 | 91,877 | 1 | 1/0/0 | 3 | 30,625.67 | 3.49 |
| Leitrim | 35,199 | 1.19 | 35,199 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Limerick | 209,536 | 7.08 | 0 | 0 | 209,536 | 2 | 1/1/0 | 7 | 29,933.71 | 1.15 |
| Longford | 46,751 | 1.58 | 0 | 35,199 | 81,950 | 1 | 1/0/0 | 3 | 27,316.67 | -7.69 |
| Louth | 139,703 | 4.72 | 14,488 | 0 | 125,215 | 1 | 0/1/0 | 4 | 31,303.75 | 5.78 |
| Mayo | 137,970 | 4.66 | 0 | 0 | 137,970 | 1 | 0/0/1 | 5 | 27,594.00 | -6.75 |
| Meath | 220,826 | 7.46 | 0 | 0 | 220,826 | 2 | 1/0/1 | 8 | 27,603.25 | -6.72 |
| Monaghan | 65,288 | 2.21 | 0 | 14,488 | 79,776 | 1 | 1/0/0 | 3 | 26,592.00 | -10.14 |
| Offaly | 83,150 | 2.81 | 0 | 0 | 83,150 | 1 | 1/0/0 | 3 | 27,716.67 | -6.34 |
| Roscommon | 70,259 | 2.37 | 0 | 70,198 | 140,457 | 1 | 0/0/1 | 5 | 28,091.40 | -5.07 |
| Sligo | 70,198 | 2.37 | 70,198 | 0 | 0 | 0 | 0/0/0 | 0 | 0.00 | 0.00 |
| Tipperary | 167,895 | 5.67 | 0 | 0 | 167,895 | 2 | 2/0/0 | 6 | 27,982.50 | -5.44 |
| Waterford | 127,363 | 4.30 | 0 | 0 | 127,363 | 1 | 0/1/0 | 4 | 31,840.75 | 7.60 |

| Name | Population | Fractional Seat | Transfer Out | Transfer In | Effective Population | Const. Assigned | Const. Types | Seats Assigned | Persons Per Seat | Variation |
|-----------|------------|-----------------|--------------|-------------|----------------------|-----------------|--------------|----------------|------------------|-----------|
| Westmeath | 96,221 | 3.25 | 0 | 0 | 96,221 | 1 | 1/0/0 | 3 | 32,073.67 | 8.39 |
| Wexford | 163,919 | 5.54 | 0 | 0 | 163,919 | 2 | 2/0/0 | 6 | 27,319.83 | -7.68 |
| Wicklow | 155,851 | 5.27 | 0 | 0 | 155,851 | 1 | 0/0/1 | 5 | 31,170.20 | 5.33 |

| Table 178: 4 Transfers (Total 137693) | | | |
|---------------------------------------|-----------|--------|-----------------|
| From | To | Volume | Percent of From |
| Kilkenny | Carlow | 17,808 | 17.10 |
| Louth | Monaghan | 14,488 | 10.37 |
| Leitrim | Longford | 35,199 | 100.00 |
| Sligo | Roscommon | 70,198 | 100.00 |

Figure 60: Sol59 (174 seats, 46 constituencies, 4 transfers, 29,693.13 persons per TD, Δ_{max} 3,000 (10.14% of 29,592), weighted variation 4.87%)