Appendix A. Multi-Season Net Generation Histograms

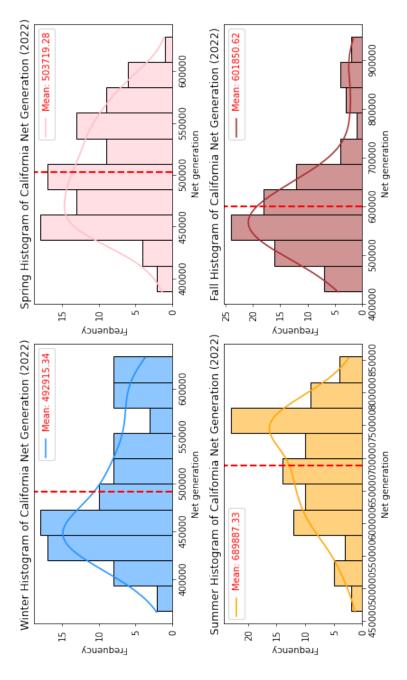


Figure A.16: California Net Generation Multi-Season Histogram

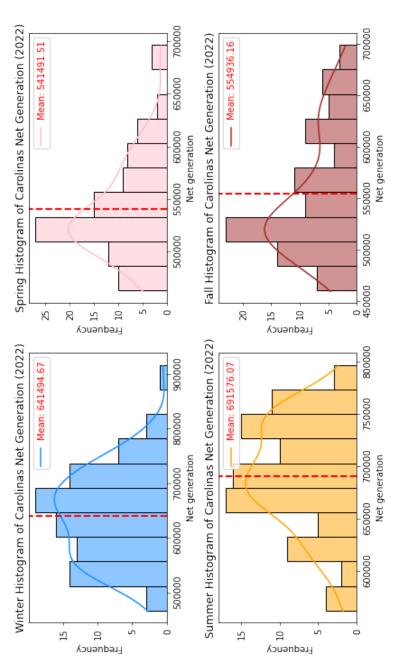


Figure A.17: Carolina Net Generation Multi-Season Histogram

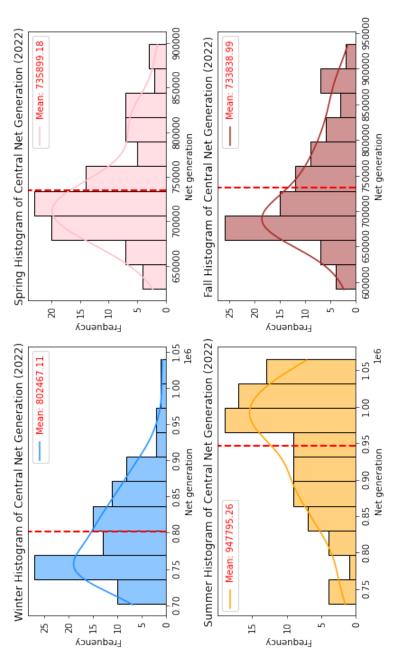


Figure A.18: Central Net Generation Multi-Season Histogram

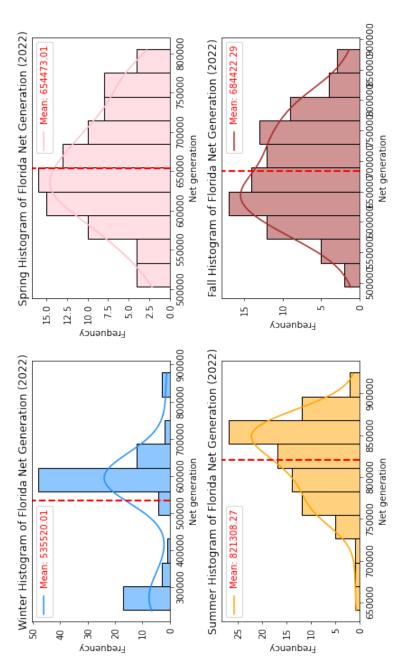


Figure A.19: Florida Net Generation Multi-Season Histogram

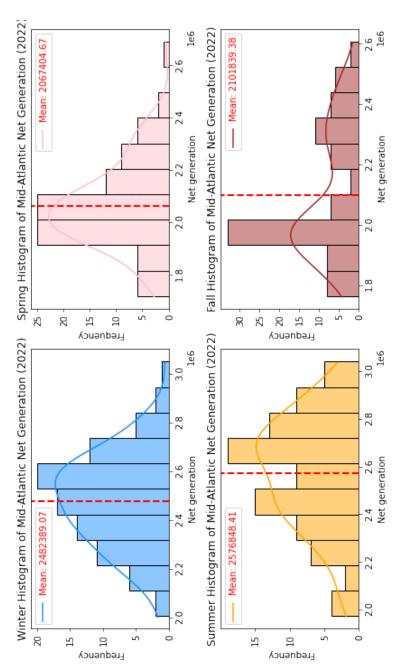


Figure A.20: Mid-Atlantic Net Generation Multi-Season Histogram

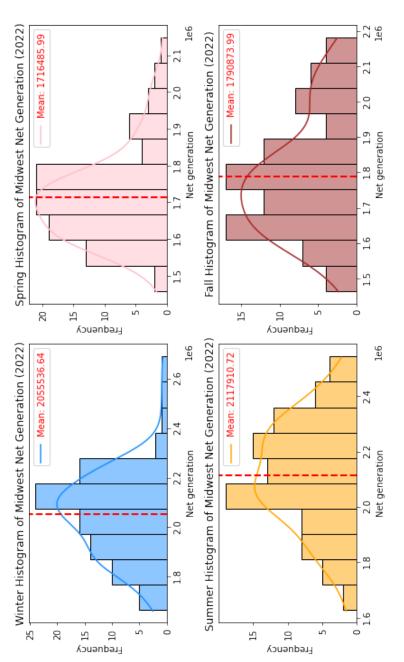


Figure A.21: Midwest Net Generation Multi-Season Histogram

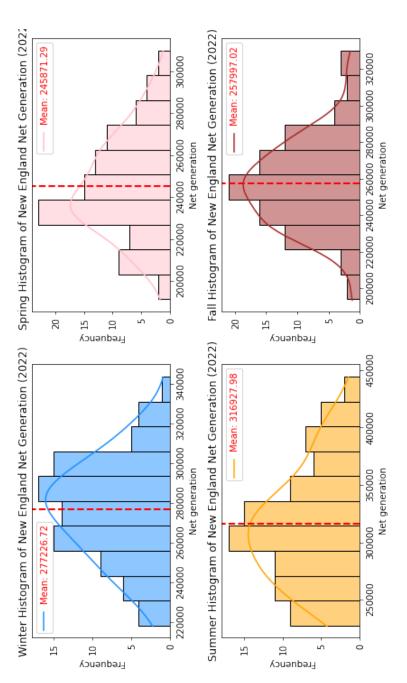


Figure A.22: New England Net Generation Multi-Season Histogram

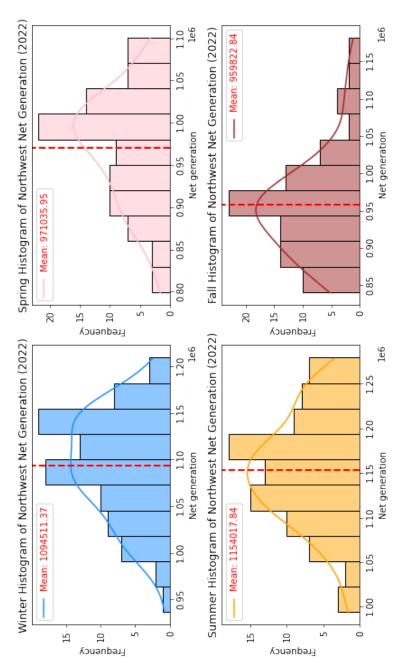


Figure A.23: Northwest Net Generation Multi-Season Histogram

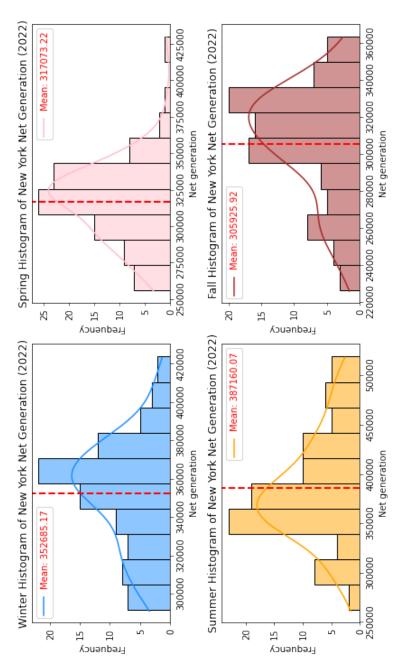


Figure A.24: New York Net Generation Multi-Season Histogram

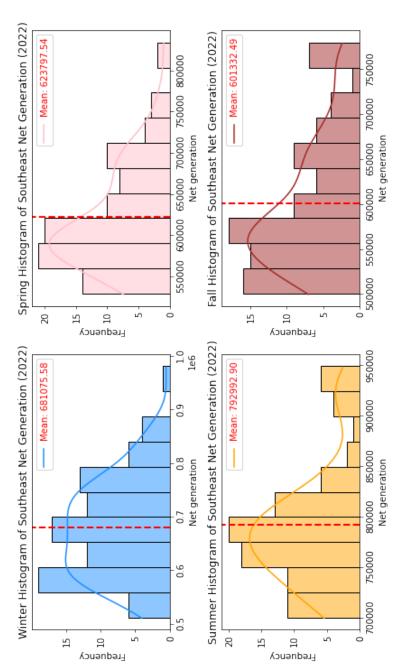


Figure A.25: Southeast Net Generation Multi-Season Histogram

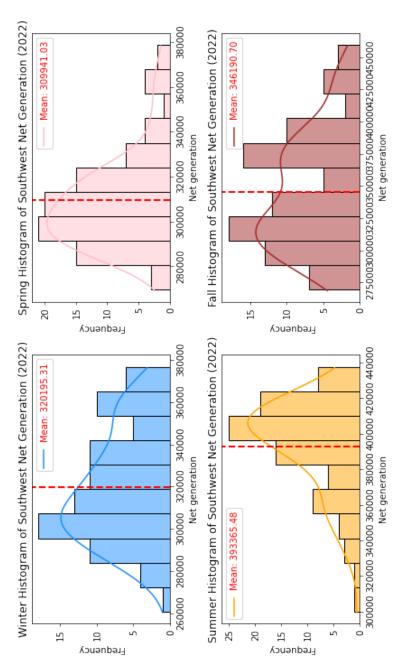


Figure A.26: Southwest Net Generation Multi-Season Histogram

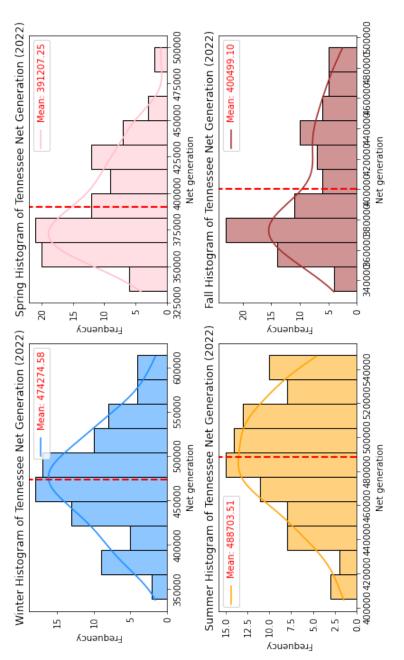


Figure A.27: Tennessee Net Generation Multi-Season Histogram

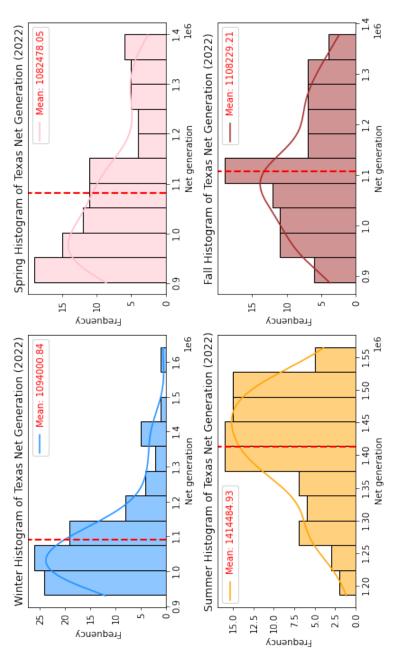


Figure A.28: Texas Net Generation Multi-Season Histogram

Appendix B. Multi-Season Demand Histograms

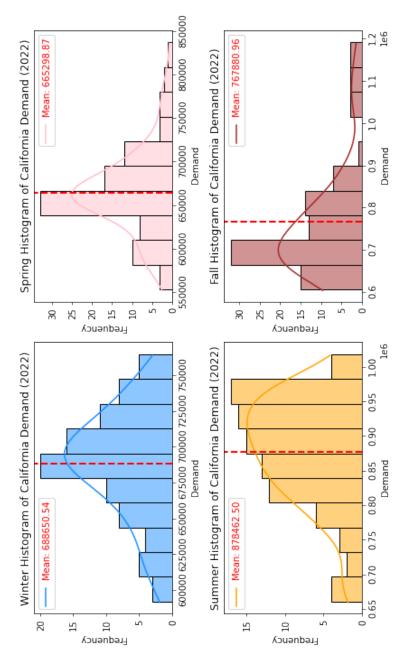


Figure B.29: California Demand Multi-Season Histogram

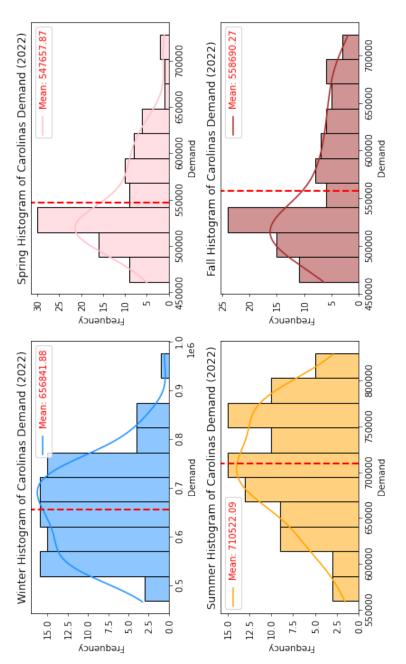


Figure B.30: Carolina Demand Multi-Season Histogram

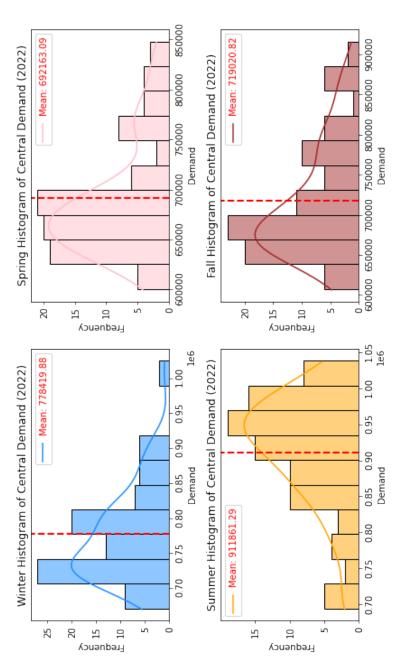


Figure B.31: Central Demand Multi-Season Histogram

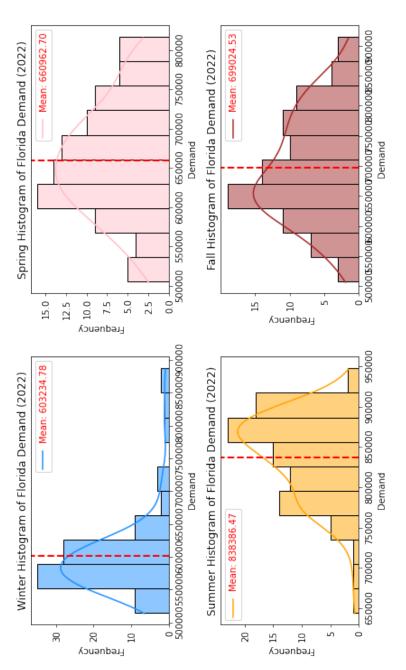


Figure B.32: Florida Demand Multi-Season Histogram

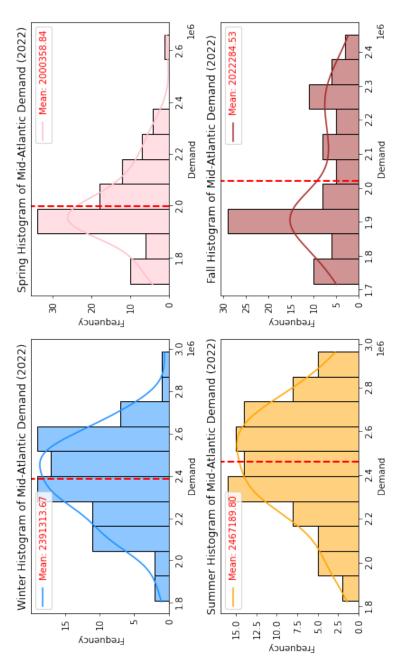


Figure B.33: Mid-Atlantic Demand Multi-Season Histogram

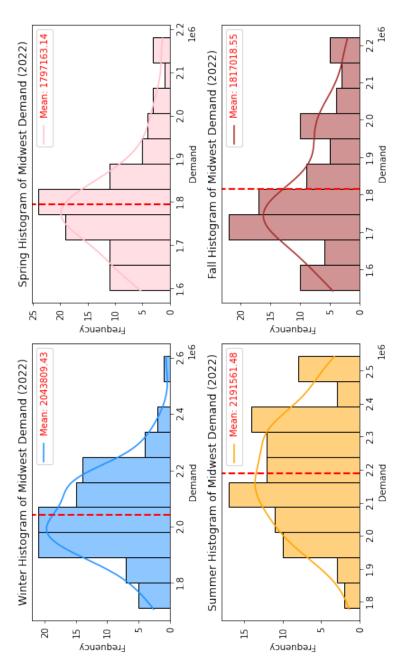


Figure B.34: Midwest Demand Multi-Season Histogram

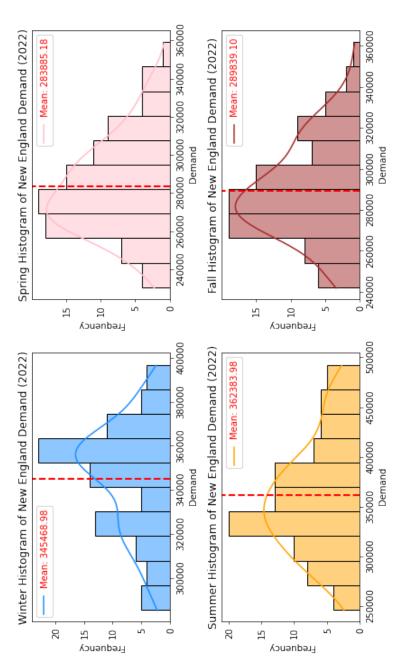


Figure B.35: New England Demand Multi-Season Histogram

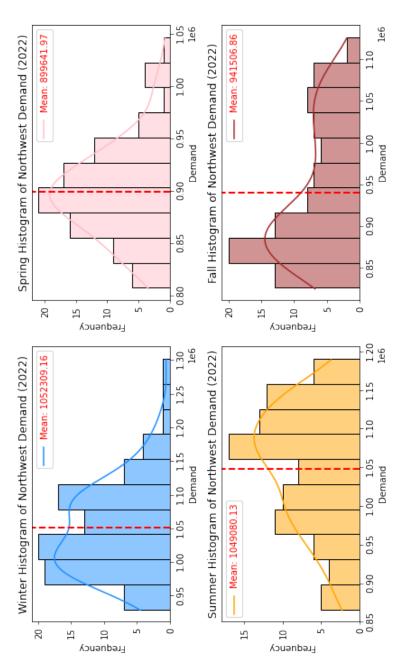


Figure B.36: Northwest Demand Multi-Season Histogram

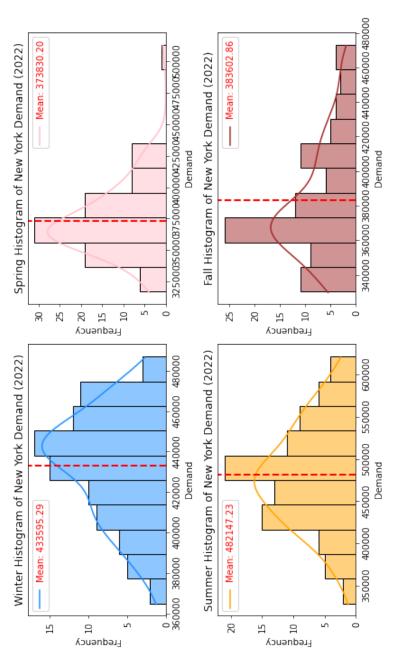


Figure B.37: New York Demand Multi-Season Histogram

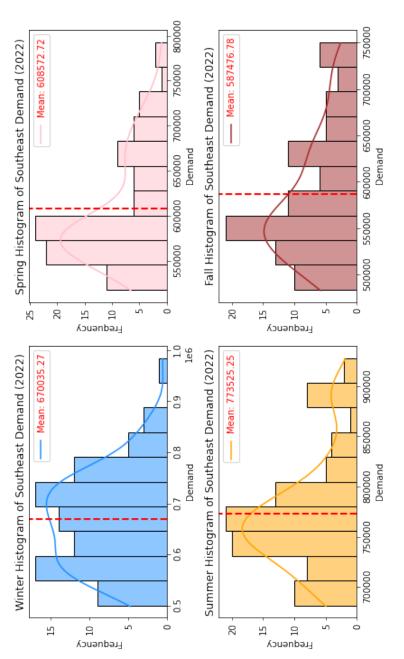


Figure B.38: Southeast Demand Multi-Season Histogram

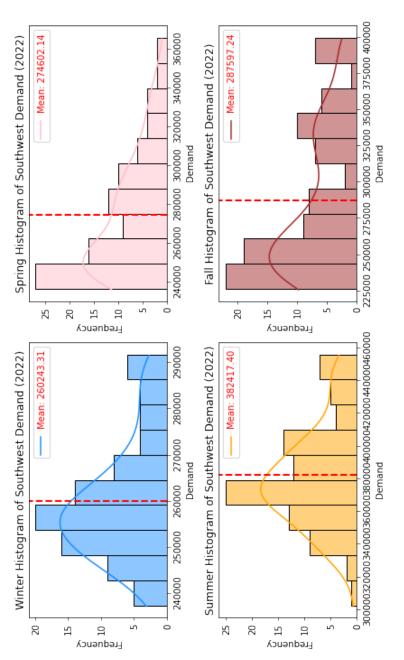


Figure B.39: Southwest Demand Multi-Season Histogram

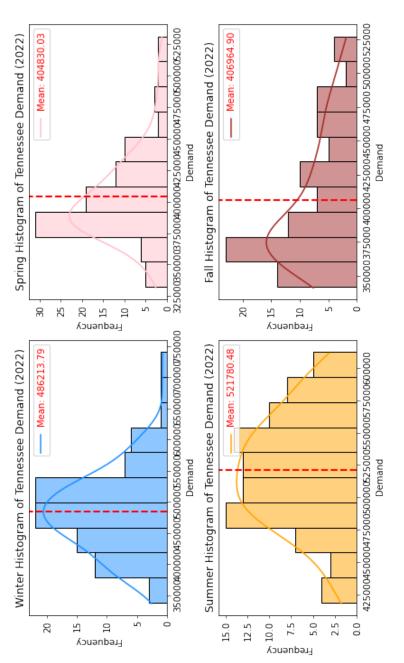


Figure B.40: Tennessee Demand Multi-Season Histogram

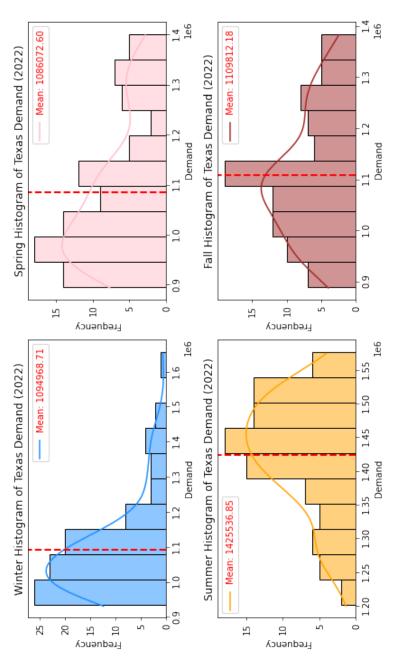


Figure B.41: Texas Demand Multi-Season Histogram

Appendix C. Seasonal Graphs

Spring Regional Graph 2022 CAL SW NW TEX TEX CENT MIDA TEN CAR SE FLA

Figure C.42: Spring Regional Network Graph

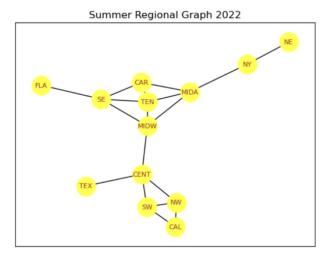


Figure C.43: Summer Regional Network Graph

SE TEN MIDA NY

Fall Regional Graph 2022

Figure C.44: Fall Regional Network Graph

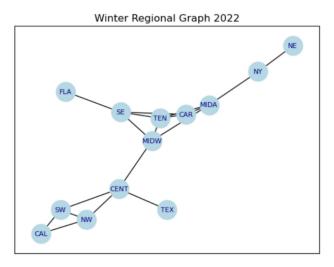


Figure C.45: Winter Regional Network Graph

Appendix D. Seasonal Distribution Parameters

Table D.3: Winter Distribution Results

| Region | Distribution | Parameters | Values |
|--------|--------------|-------------------------|------------|
| CAL | Normal | Mean | 688650.54 |
| | | Standard Deviation | 38921.5 |
| CAR | Normal | Mean | 656841.88 |
| | | Standard Deviation | 96252.26 |
| CENT | Gamma | Shape (γ) | 2.95 |
| | | Location (loc) | 659714.51 |
| | | Scale (scale) | 40291.34 |
| FLA | Log-Normal | Shape (s) | 0.48 |
| | | Location (loc) | 489723.28 |
| | | Scale (scale) | 100637.17 |
| MIDA | Normal | Mean | 2391313.67 |
| | | Standard Deviation | 210481.02 |
| MIDW | Chi2 | Degrees of Freedom (df) | 738.40 |
| | | Location (loc) | 915042.98 |
| | | Scale (scale) | 4007.10 |
| NE | Normal | Mean | 345468.98 |
| | | Standard Deviation | 25616.11 |
| NW | Rayleigh | Location (loc) | 920271.01 |
| | | Scale (scale) | 105750.72 |
| NY | Normal | Mean | 433595.29 |
| | | Standard Deviation | 26973.23 |
| SE | Rayleigh | Location (loc) | 487820.17 |
| | | Scale (scale) | 145142.52 |
| SW | Log-Normal | Shape (s) | 0.31 |
| | | Location (loc) | 219060.20 |
| | | Scale (scale) | 39212.45 |
| TEN | Log-Normal | Shape (s) | 0.17 |
| | | Location (loc) | 76756.41 |
| | | Scale (scale) | 403579.32 |
| TEX | Log-Normal | Shape (s) | 0.67 |
| | | Location (loc) | 898612.38 |
| | | Scale (scale) | 157380.57 |

Table D.4: Spring Distribution Results

| Region | Distribution | Parameters | Values |
|--------|-------------------|-------------------------|------------|
| CAL | Cauchy | Location (loc) | 662657.76 |
| | | Scale (scale) | 21149.32 |
| CAR | Log-Normal | Shape (s) | 0.42 |
| | | Location (loc) | 420711.01 |
| | | Scale (scale) | 116335.29 |
| CENT | Log-Normal | Shape (s) | 0.47 |
| | | Location (loc) | 571428.68 |
| | | Scale (scale) | 108046.39 |
| FLA | Log-Normal | Shape (s) | 0.05 |
| | | Location (loc) | 740472.43 |
| | | Scale (scale) | 1399447.14 |
| MIDA | Cauchy | Location (loc) | 1968392.71 |
| | | Scale (scale) | 74190.19 |
| MIDW | Log-Normal | Shape (s) | 0.34 |
| | | Location (loc) | 1448864.50 |
| | | Scale (scale) | 328418.27 |
| NE | Gamma | Shape (γ) | 11.29 |
| | | Location (loc) | 196580.96 |
| | | Scale (scale) | 7732.28 |
| NW | Chi2 | Degrees of Freedom (df) | 136.90 |
| | | Location (loc) | 518604.09 |
| | | Scale (scale) | 2783.13 |
| NY | Log-Normal | Shape (s) | 0.24 |
| | | Location (loc) | 252391.96 |
| | | Scale (scale) | 118065.82 |
| SE | Log-Normal | Shape (s) | 0.51 |
| | | Location (loc) | 484600.08 |
| | | Scale (scale) | 109063.35 |
| SW | Gamma | Shape (γ) | 1.20 |
| | | Location (loc) | 235928.24 |
| | | Scale (scale) | 32194.11 |
| TEN | Log-Normal | Shape (s) | 0.29 |
| | | Location (loc) | 280099.94 |
| | | Scale (scale) | 119433.60 |
| TEX | Exponential Power | Shape (b) | 0.97 |
| | | Location (loc) | 895478 |
| | | Scale (scale) | 327556.24 |

Table D.5: Summer Distribution Results

| Region | Distribution | Parameters | Values |
|--------|--------------|-------------------------|------------|
| CAL | Normal | Mean | 878462.50 |
| | | Standard Deviation | 81924.79 |
| CAR | Normal | Mean | 710522.09 |
| | | Standard Deviation | 61512.19 |
| CENT | Powerlaw | Exponent (a) | 1.99 |
| | | Location (loc) | 661600.94 |
| | | Scale (scale) | 376285.06 |
| FLA | Chi2 | Degrees of Freedom (df) | 513.93 |
| | | Location (loc) | 77352.38 |
| | | Scale (scale) | 1784.64 |
| MIDA | Normal | Mean | 2467189.80 |
| | | Standard Deviation | 251373.19 |
| MIDW | Normal | Mean | 2191561.48 |
| | | Standard Deviation | 175042.18 |
| NE | Gamma | Shape (γ) | 10.93 |
| | | Location (loc) | 167866.75 |
| | | Scale (scale) | 17803.44 |
| NW | Powerlaw | Exponent (a) | 1.35 |
| | | Location (loc) | 862371.08 |
| | | Scale (scale) | 328099.93 |
| NY | Log-Normal | Shape (s) | 0.03 |
| | | Location (loc) | 1913682.63 |
| | | Scale (scale) | 2395013.25 |
| SE | Log-Normal | Shape (s) | 0.36 |
| | | Location (loc) | 616169.48 |
| | | Scale (scale) | 147533.95 |
| SW | Log-Normal | Shape (s) | 0.14 |
| | | Location (loc) | 156997.36 |
| | | Scale (scale) | 223136.93 |
| TEN | Gamma | Shape (γ) | 2090.89 |
| | | Location (loc) | 1521303.90 |
| | | Scale (scale) | 977.12 |
| TEX | Normal | Mean | 1425536.85 |
| - | | Standard Deviation | 86623.89 |

Table D.6: Fall Distribution Results

| Location | Distribution | Parameters | Values |
|----------|-------------------|------------------|------------|
| CAL | Log-Normal | Shape (s) | 0.67 |
| | | Location (loc) | 576297.85 |
| | | Scale (scale) | 153614.92 |
| CAR | Log-Normal | Shape (s) | 0.57 |
| | | Location (loc) | 436273.40 |
| | | Scale (scale) | 104763.42 |
| CENT | Log-Normal | Shape (s) | 0.45 |
| | | Location (loc) | 559543.53 |
| | | Scale (scale) | 144284.69 |
| FLA | Gamma | Shape (a) | 21.57 |
| | | Location (loc) | 278972.59 |
| | | Scale (scale) | 19477.49 |
| MIDA | Gamma | Shape (a) | 2.92 |
| | | Location (loc) | 1667456.10 |
| | | Scale (scale) | 121584.82 |
| MIDW | Gamma | Shape (γ) | 3.62 |
| | | Location (loc) | 1491596.45 |
| | | Scale (scale) | 89784.66 |
| NE | Gamma | Shape (γ) | 18.19 |
| | | Location (loc) | 185078.28 |
| | | Scale (scale) | 5759.46 |
| NW | Exponential Power | Shape (b) | 0.98 |
| | | Location (loc) | 825920.00 |
| | | Scale (scale) | 191499.34 |
| NY | Gamma | Shape (γ) | 3.02 |
| | | Location (loc) | 320087.94 |
| | | Scale (scale) | 21059.03 |
| SE | Gamma | Shape (γ) | 2.24 |
| | | Location (loc) | 475226.09 |
| | | Scale (scale) | 50073.55 |
| SW | Exponential | Location (loc) | 226088.00 |
| | | Scale (scale) | 61509.24 |
| TEN | Gamma | Shape (γ) | 1.59 |
| | | Location (loc) | 340177.82 |
| | | Scale (scale) | 42021.89 |
| TEX | Rayleigh | Location (loc) | 871021.07 |
| | • • | Scale (scale) | 190419.80 |