**Part 1 – Identifying Market Inefficiencies with Playoff Statistics**

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| Metric | Win\_est\_1 | Cost\_est\_1 | Win\_est\_2 | Win\_est\_3 | Cost\_est\_3 |
| Key aspect |  |  | No classifiers | Z-score all | Z-score all |
| # of observations | 2586 | 2586 | 2586 | 2586 | 2586 | |
| # of features | 29 | 29 | 16 | 29 | 29 | |
| Adj R^2 | 0.681 | 0.465 | 0.481 | 0.681 | 0.465 | |
| AIC/BIC | 4413/4589 | 5434/5610 | 5660/5760 | 4413/4589 | 5434/5610 | |
| Stat. Sig. Features | Intercept (-1.72)\*\*\* | Intercept (-1.42)\*\*\* | Intercept (-2.48)\*\*\* | Intercept (-0.48)\*\*\* | Intercept (-0.64)\*\*\* | |
| *(below 0.1 p-value)* | PG or SG (-0.44)\*\*\* | PG or SG (-0.56) \*\*\* | Age (+)\*\*\* | PG or SG (-0.18)\*\*\* | PG (-0.36) \*\*\* | |
| *\*below .1* | Frontcourt player  (-0.39)\*\*\* | SF (-0.16)\*\*\* | TS% (+3.69)\*\*\* | Frontcourt player  (-0.13)\*\*\* | SG (-0.26)\*\*\* | |
| *\*\*below .05* | Bench minutes (+1.08)\*\*\* | Frontcourt player  (-0.29)\*\*\* | FTr (+0.24)\*\* | Bench minutes (+1.08)\*\*\* | SF (-0.16)\*\*\* | |
| *\*\*\* below .01* | Starter minutes (+1.12)\*\*\* | Bench minutes (+0.44)\*\*\* | ORB (+)\*\*\* | Starter minutes (+1.13)\*\*\* | Bench minutes (+0.44)\*\*\* | |
|  | Both def/off liability (-0.5)\*\*\* | Starter minutes (+1.12)\*\*\* | DRB (+)\*\*\* | Both def/off liability (-0.50)\*\*\* | Starter minutes (+1.12)\*\*\* | |
|  | Both def/off asset (+0.34)\*\*\* | Star asset (+0.41)\*\*\* | AST (-)\*\*\* | Both def/off asset (+0.35)\*\*\* | Star asset (+0.41)\*\*\* | |
|  | Star asset (+0.48)\*\*\* | Prime Age (+0.39)\*\*\* | STL (+)\*\*\* | Star asset (+0.48)\*\*\* | Prime age (+0.39)\*\*\* | |
|  | Age (+0.01)\* | Desc. Age (+0.24)\*\* | BLK (+)\*\*\* | Age (+0.05)\* | Desc. age (+0.23)\*\* | |
|  | TS% (+2.3)\*\*\* | Age (+0.03)\*\*\* | TOV (-)\*\*\* | TS% (+0.28)\*\*\* | Age (+0.12)\*\*\* | |
|  | FTr (+0.31)\*\*\* | TS% (-0.29)\*\* | USG (-)\*\*\* | FTr (+0.07)\*\*\* | TS% (-0.04)\*\* | |
|  | ORB (+0.03)\*\*\* | 3 Point rate (-0.19)\*\* | MPG (+)\*\*\* | ORB (+0.12)\*\*\* | 3 Point rate (-0.05)\*\* | |
|  | STL (-0.02)\*\* | ORB (-0.01)\*\* | Def\_add (+)\*\*\* | STL (-0.02)\*\* | ORB (-0.05)\*\* | |
|  | TOV (-0.00)\* | DRB (+0.00)\* | AST/TOV (barely -)\* | TOV (-0.05)\*\*\* | DRB (+0.03)\* | |
|  | USG (-0.02)\*\*\* | AST (+0.01)\*\* | TOV/USG (-0.33)\*\*\* | USG (-0.12)\*\*\* | AST (+0.07)\*\*\* | |
|  | Def\_add (+0.08)\*\*\* | BLK (+0.02)\* | FT/TS% (+)\*\*\* | Def\_add (+0.04)\*\*\* | BLK (+0.03)\* | |
|  | AST/TOV (-0.00)\* | USG (+0.01)\*\*\* |  | AST/TOV (-0.02)\* | USG (+0.07)\*\*\* | |
|  | TOV/USG (-0.39)\*\*\* | FTr/TS% (+0.16)\*\* |  | TOV/USG (-0.18)\*\*\* | FTr/TS% (+0.10)\*\* | |

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| Metric | Win\_est\_3 | Win\_est\_starters | Cost\_est\_3 | Cap\_est\_starters |
| Key aspect | Z-score all | Starter minutes only – Z-score | Z-score all | Starter minutes only – Z-score |
| # of observations | 2586 | 1060 | 2586 | 1060 |
| # of features | 29 | 27 | 29 | 27 |
| Adj R^2 | 0.681 | 0.822 | 0.465 | 0.442 |
| AIC/BIC | 4413/4589 | 1040/1179 | 5434/5610 | 1794/1934 |
| Stat. Sig. Features | Intercept (-0.48)\*\*\* | Def liability (-0.26)\*\*\* | Intercept (-0.64)\*\*\* | Intercept (+0.57)\*\*\* |
| *(below 0.1 p-value)* | PG or SG (-0.18)\*\*\* | Off liability (-0.11)\*\*\* | PG (-0.36) \*\*\* | PG or SG (-0.35)\*\*\* |
| *\*below .1* | Frontcourt player (-0.13)\*\*\* | Def asset (+0.19)\*\*\* | SG (-0.26)\*\*\* | Def liability (+0.11)\*\* |
| *\*\*below .05* | Bench minutes (+1.08)\*\*\* | Off asset (+0.10)\*\* | SF (-0.16)\*\*\* | Off liability (-0.17)\*\*\* |
| *\*\*\* below .01* | Starter minutes (+1.13)\*\*\* | Star asset (+0.31)\*\*\* | Bench minutes (+0.44)\*\*\* | Star asset (+0.17)\*\* |
|  | Both def/off liability (-0.5)\*\*\* | TS% (+0.91)\*\*\* | Starter minutes (+1.12)\*\*\* | Both def/off liability (-0.5)\*\*\* |
|  | Both def/off asset (+0.34)\*\*\* | ORB (+0.26)\*\*\* | Star asset (+0.41)\*\*\* | Prime. Age (+0.40)\*\*\* |
|  | Star asset (+0.48)\*\*\* | DRB (+0.07)\*\*\* | Prime age (+0.39)\*\*\* | Age (+0.32)\*\*\* |
|  | Age (+0.05)\* | STL (+0.08)\*\*\* | Desc. age (+0.23)\*\* | TS% (-0.11) \* |
|  | TS% (+0.28)\*\*\* | BLK (+0.04)\* | Age (+0.12)\*\*\* | 3 Point rate (-0.09)\*\*\* |
|  | FTr (+0.07)\*\*\* | TOV (-0.53)\*\*\* | TS% (-0.04)\*\* | FTr (+0.26)\* |
|  | ORB (+0.12)\*\*\* | Def\_add (-0.02) \* | 3 Point rate (-0.05)\*\* | AST (+0.08)\*\* |
|  | STL (-0.02)\*\* | AST/TOV (-0.04)\* | ORB (-0.05)\*\* | BLK(+0.06)\* |
|  | TOV (-0.05)\*\*\* |  | DRB (+0.03)\* | USG (+0.21)\*\*\* |
|  | USG (-0.12)\*\*\* |  | AST (+0.07)\*\*\* |  |
|  | Def\_add (+0.04)\*\*\* |  | BLK (+0.03)\* |  |
|  | AST/TOV (-0.02)\* |  | USG (+0.07)\*\*\* |  |
|  | TOV/USG (-0.18)\*\*\* |  | FTr/TS% (+0.10)\*\* |  |

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| --- | --- | --- | --- | --- |
| Metric | Win\_est\_3 | Win\_est\_b | Cost\_est\_3 | Cap\_est\_b |
| Key aspect | Z-score all | Bench minutes only – Z-score | Z-score all | Bench minutes only – Z-score |
| # of observations | 2586 | 956 | 2586 | 956 |
| # of features | 29 | 26 (no star asset) | 29 | 26 (no star asset) |
| Adj R^2 | 0.681 | 0.827 | 0.465 | 0.090 |
| AIC/BIC | 4413/4589 | 1354/1486 | 5434/5610 | 2215/2347 |
| Stat. Sig. Features | Intercept (-0.48)\*\*\* | PG or SG (+0.23)\*\*\* | Intercept (-0.64)\*\*\* | PG (-0.30)\*\* |
| *(below 0.1 p-value)* | PG or SG (-0.18)\*\*\* | PF (0.11)\*\* | PG (-0.36) \*\*\* | Def. asset (-0.20)\*\* |
| *\*below .1* | Frontcourt player (-0.13)\*\*\* | SF (+0.12)\* | SG (-0.26)\*\*\* | Prime age (+0.37)\*\*\* |
| *\*\*below .05* | Bench minutes (+1.08)\*\*\* | Def. liability (-0.24)\*\*\* | SF (-0.16)\*\*\* | TS% (-0.10)\*\* |
| *\*\*\* below .01* | Starter minutes (+1.13)\*\*\* | Def. asset (+0.20)\*\*\* | Bench minutes (+0.44)\*\*\* | FTr (+0.17)\* |
|  | Both def/off liability (-0.5)\*\*\* | TS% (+0.84)\*\*\* | Starter minutes (+1.12)\*\*\* | TOV (0.18)\*\* |
|  | Both def/off asset (+0.34)\*\*\* | FTr (+0.12)\*\* | Star asset (+0.41)\*\*\* | TOV/USG (-0.18)\*\*\* |
|  | Star asset (+0.48)\*\*\* | ORB (+0.33)\*\*\* | Prime age (+0.39)\*\*\* |  |
|  | Age (+0.05)\* | DRB (+0.11)\*\*\* | Desc. age (+0.23)\*\* |  |
|  | TS% (+0.28)\*\*\* | AST (+0.25)\*\*\* | Age (+0.12)\*\*\* |  |
|  | FTr (+0.07)\*\*\* | STL (+0.09)\*\*\* | TS% (-0.04)\*\* |  |
|  | ORB (+0.12)\*\*\* | TOV (-0.48)\*\*\* | 3 Point rate (-0.05)\*\* |  |
|  | STL (-0.02)\*\* | USG (-0.16)\*\*\* | ORB (-0.05)\*\* |  |
|  | TOV (-0.05)\*\*\* | Def\_add (-0.03)\* | DRB (+0.03)\* |  |
|  | USG (-0.12)\*\*\* |  | AST (+0.07)\*\*\* |  |
|  | Def\_add (+0.04)\*\*\* |  | BLK (+0.03)\* |  |
|  | AST/TOV (-0.02)\* |  | USG (+0.07)\*\*\* |  |
|  | TOV/USG (-0.18)\*\*\* |  | FTr/TS% (+0.10)\*\* |  |

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| Metric | Cost\_est\_3 | Cap\_est\_gt |
| Key aspect | Z-score all | GT minutes only – Z-score |
| # of observations | 2586 | 570 |
| # of features | 29 | 18 |
| Adj R^2 | 0.465 | 0.045 |
| AIC/BIC | 5434/5610 | 1242/1324 |
| Stat. Sig. Features | Intercept (-0.64)\*\*\* | PG or SG (-0.28)\*\* |
| *(below 0.1 p-value)* | PG (-0.36) \*\*\* | Prime age (+0.39)\*\*\* |
| *\*below .1* | SG (-0.26)\*\*\* | Desc. age (0.48)\*\* |
| *\*\*below .05* | SF (-0.16)\*\*\* |  |
| *\*\*\* below .01* | Bench minutes (+0.44)\*\*\* |  |
|  | Starter minutes (+1.12)\*\*\* |  |
|  | Star asset (+0.41)\*\*\* |  |
|  | Prime age (+0.39)\*\*\* |  |
|  | Desc. age (+0.23)\*\* |  |
|  | Age (+0.12)\*\*\* |  |
|  | TS% (-0.04)\*\* |  |
|  | 3 Point rate (-0.05)\*\* |  |
|  | ORB (-0.05)\*\* |  |
|  | DRB (+0.03)\* |  |
|  | AST (+0.07)\*\*\* |  |
|  | BLK (+0.03)\* |  |
|  | USG (+0.07)\*\*\* |  |
|  | FTr/TS% (+0.10)\*\* |  |

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| --- | --- | --- | --- | --- |
| Metric | Win\_est\_3 |  | Cost\_est\_3 |  |
| Key aspect | Z-score all |  | Z-score all |  |
| # of observations | 2586 |  | 2586 |  |
| # of features | 29 |  | 29 |  |
| Adj R^2 | 0.681 |  | 0.465 |  |
| AIC/BIC | 4413/4589 |  | 5434/5610 |  |
| Stat. Sig. Features | Intercept (-0.48)\*\*\* |  | Intercept (-0.64)\*\*\* |  |
| *(below 0.1 p-value)* | PG or SG (-0.18)\*\*\* |  | PG (-0.36) \*\*\* |  |
| *\*below .1* | Frontcourt player (-0.13)\*\*\* |  | SG (-0.26)\*\*\* |  |
| *\*\*below .05* | Bench minutes (+1.08)\*\*\* |  | SF (-0.16)\*\*\* |  |
| *\*\*\* below .01* | Starter minutes (+1.13)\*\*\* |  | Bench minutes (+0.44)\*\*\* |  |
|  | Both def/off liability (-0.5)\*\*\* |  | Starter minutes (+1.12)\*\*\* |  |
|  | Both def/off asset (+0.34)\*\*\* |  | Star asset (+0.41)\*\*\* |  |
|  | Star asset (+0.48)\*\*\* |  | Prime age (+0.39)\*\*\* |  |
|  | Age (+0.05)\* |  | Desc. age (+0.23)\*\* |  |
|  | TS% (+0.28)\*\*\* |  | Age (+0.12)\*\*\* |  |
|  | FTr (+0.07)\*\*\* |  | TS% (-0.04)\*\* |  |
|  | ORB (+0.12)\*\*\* |  | 3 Point rate (-0.05)\*\* |  |
|  | STL (-0.02)\*\* |  | ORB (-0.05)\*\* |  |
|  | TOV (-0.05)\*\*\* |  | DRB (+0.03)\* |  |
|  | USG (-0.12)\*\*\* |  | AST (+0.07)\*\*\* |  |
|  | Def\_add (+0.04)\*\*\* |  | BLK (+0.03)\* |  |
|  | AST/TOV (-0.02)\* |  | USG (+0.07)\*\*\* |  |
|  | TOV/USG (-0.18)\*\*\* |  | FTr/TS% (+0.10)\*\* |  |

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| --- | --- | --- | --- | --- |
| Metric | Win\_est\_3 |  | Cost\_est\_3 |  |
| Key aspect | Z-score all |  | Z-score all |  |
| # of observations | 2586 |  | 2586 |  |
| # of features | 29 |  | 29 |  |
| Adj R^2 | 0.681 |  | 0.465 |  |
| AIC/BIC | 4413/4589 |  | 5434/5610 |  |
| Stat. Sig. Features | Intercept (-0.48)\*\*\* |  | Intercept (-0.64)\*\*\* |  |
| *(below 0.1 p-value)* | PG or SG (-0.18)\*\*\* |  | PG (-0.36) \*\*\* |  |
| *\*below .1* | Frontcourt player (-0.13)\*\*\* |  | SG (-0.26)\*\*\* |  |
| *\*\*below .05* | Bench minutes (+1.08)\*\*\* |  | SF (-0.16)\*\*\* |  |
| *\*\*\* below .01* | Starter minutes (+1.13)\*\*\* |  | Bench minutes (+0.44)\*\*\* |  |
|  | Both def/off liability (-0.5)\*\*\* |  | Starter minutes (+1.12)\*\*\* |  |
|  | Both def/off asset (+0.34)\*\*\* |  | Star asset (+0.41)\*\*\* |  |
|  | Star asset (+0.48)\*\*\* |  | Prime age (+0.39)\*\*\* |  |
|  | Age (+0.05)\* |  | Desc. age (+0.23)\*\* |  |
|  | TS% (+0.28)\*\*\* |  | Age (+0.12)\*\*\* |  |
|  | FTr (+0.07)\*\*\* |  | TS% (-0.04)\*\* |  |
|  | ORB (+0.12)\*\*\* |  | 3 Point rate (-0.05)\*\* |  |
|  | STL (-0.02)\*\* |  | ORB (-0.05)\*\* |  |
|  | TOV (-0.05)\*\*\* |  | DRB (+0.03)\* |  |
|  | USG (-0.12)\*\*\* |  | AST (+0.07)\*\*\* |  |
|  | Def\_add (+0.04)\*\*\* |  | BLK (+0.03)\* |  |
|  | AST/TOV (-0.02)\* |  | USG (+0.07)\*\*\* |  |
|  | TOV/USG (-0.18)\*\*\* |  | FTr/TS% (+0.10)\*\* |  |

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| --- | --- | --- | --- | --- |
| Metric | Win\_est\_3 |  | Cost\_est\_3 |  |
| Key aspect | Z-score all |  | Z-score all |  |
| # of observations | 2586 |  | 2586 |  |
| # of features | 29 |  | 29 |  |
| Adj R^2 | 0.681 |  | 0.465 |  |
| AIC/BIC | 4413/4589 |  | 5434/5610 |  |
| Stat. Sig. Features | Intercept (-0.48)\*\*\* |  | Intercept (-0.64)\*\*\* |  |
| *(below 0.1 p-value)* | PG or SG (-0.18)\*\*\* |  | PG (-0.36) \*\*\* |  |
| *\*below .1* | Frontcourt player (-0.13)\*\*\* |  | SG (-0.26)\*\*\* |  |
| *\*\*below .05* | Bench minutes (+1.08)\*\*\* |  | SF (-0.16)\*\*\* |  |
| *\*\*\* below .01* | Starter minutes (+1.13)\*\*\* |  | Bench minutes (+0.44)\*\*\* |  |
|  | Both def/off liability (-0.5)\*\*\* |  | Starter minutes (+1.12)\*\*\* |  |
|  | Both def/off asset (+0.34)\*\*\* |  | Star asset (+0.41)\*\*\* |  |
|  | Star asset (+0.48)\*\*\* |  | Prime age (+0.39)\*\*\* |  |
|  | Age (+0.05)\* |  | Desc. age (+0.23)\*\* |  |
|  | TS% (+0.28)\*\*\* |  | Age (+0.12)\*\*\* |  |
|  | FTr (+0.07)\*\*\* |  | TS% (-0.04)\*\* |  |
|  | ORB (+0.12)\*\*\* |  | 3 Point rate (-0.05)\*\* |  |
|  | STL (-0.02)\*\* |  | ORB (-0.05)\*\* |  |
|  | TOV (-0.05)\*\*\* |  | DRB (+0.03)\* |  |
|  | USG (-0.12)\*\*\* |  | AST (+0.07)\*\*\* |  |
|  | Def\_add (+0.04)\*\*\* |  | BLK (+0.03)\* |  |
|  | AST/TOV (-0.02)\* |  | USG (+0.07)\*\*\* |  |
|  | TOV/USG (-0.18)\*\*\* |  | FTr/TS% (+0.10)\*\* |  |