NYSE Listed Securities

| Orders\# <br> Non-Dir | $\frac{\text { Orders\% }}{\text { Non-Dir }}$ | Orders\# Direct | $\frac{\text { Orders\% }}{\text { Direct }}$ | $\begin{gathered} \text { Market } \\ \text { orders\# } \end{gathered}$ | Market orders\% | $\underset{\underline{\text { orimit }}}{\text { Lers\# }}$ | $\underset{\underline{\text { orimit }} \text { ders\% }}{\text { Lis }}$ | $\begin{array}{r} \text { Other } \\ \text { orders\# } \end{array}$ | $\begin{aligned} & \text { Other } \\ & \text { orders\% } \end{aligned}$ | Venue | $\begin{aligned} & \text { Routed } \\ & \text { orders\# } \end{aligned}$ | $\begin{array}{r} \text { Routed } \\ \text { orders\% } \end{array}$ | Market orders\# | $\begin{aligned} & \frac{\text { Market }}{\text { orders\% }} \end{aligned}$ | Limit orders\# | $\begin{array}{r} \frac{\text { Limit }}{\text { orders\% }} \end{array}$ | $\begin{aligned} & \frac{\text { Other }}{} \\ & \text { orders\# } \end{aligned}$ | $\begin{array}{r} \text { Other } \\ \text { orders\% } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 100.0\% | 0 | 0.0\% | 4 | 10.5\% | 33 | 86.8\% | 1 | 2.6\% |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | NYSE | 21 | 55.3\% | 1 | 25.0\% | 20 | 60.6\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | IB ATS | 9 | 23.7\% | 2 | 50.0\% | 6 | 18.2\% | 1 | 100.0\% |
|  |  |  |  |  |  |  |  |  |  | ARCA | 2 | 5.3\% | 0 | 0.0\% | 2 | 6.1\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | PSX | 1 | 2.6\% | 0 | 0.0\% | 1 | 3.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | BEX | 1 | 2.6\% | 0 | 0.0\% | 1 | 3.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | IEX | 1 | 2.6\% | 1 | 25.0\% | 0 | 0.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | BYX | 1 | 2.6\% | 0 | 0.0\% | 1 | 3.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | CITADELDP | 1 | 2.6\% | 0 | 0.0\% | 1 | 3.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | VIRTUDP | 1 | 2.6\% | 0 | 0.0\% | 1 | 3.0\% | 0 | 0.0\% |

Nasdaq Stock Market securities

| Orders\# <br> Non-Dir | Orders\% <br> Non-Dir | Orders\# Direct | Orders\% Direct | Market orders\# | Market orders\% | $\frac{\text { Limit }}{\text { orders\# }}$ | $\begin{aligned} & \frac{\text { Limit }}{\text { orders\% }} \end{aligned}$ | $\begin{gathered} \frac{\text { Other }}{} \\ \text { orders\# } \end{gathered}$ | Other orders\% | Venue | $\begin{aligned} & \text { Routed } \\ & \text { orders\# } \end{aligned}$ | $\begin{gathered} \text { Routed } \\ \text { orders\% } \end{gathered}$ | Market orders\# | Market orders\% | $\begin{aligned} & \underline{\text { Limit }} \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { orders\% } \\ & \text { order } \end{aligned}$ | orders\# | $\begin{array}{r} \text { Other } \\ \text { orders\% } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2850 | 99.9\% | 2 | 0.1\% | 112 | 3.9\% | 2729 | 95.8\% | 9 | 0.3\% |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | ISLAND | 2,098 | 73.6\% | 45 | 40.2\% | 2,048 | 75.0\% | 5 | 55.6\% |
|  |  |  |  |  |  |  |  |  |  | IB ATS | 239 | 8.4\% | 24 | 21.4\% | 214 | 7.8\% | 1 | 11.1\% |
|  |  |  |  |  |  |  |  |  |  | DRCTEDGE | 122 | 4.3\% | 8 | 7.1\% | 114 | 4.2\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | UBSDARK | 114 | 4.0\% | 12 | 10.7\% | 102 | 3.7\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | CITADELDP | 91 | 3.2\% | 10 | 8.9\% | 80 | 2.9\% | 1 | 11.1\% |
|  |  |  |  |  |  |  |  |  |  | ARCA | 66 | 2.3\% | 2 | 1.8\% | 64 | 2.3\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | PDQ | 28 | 1.0\% | 0 | 0.0\% | 27 | 1.0\% | 1 | 11.1\% |
|  |  |  |  |  |  |  |  |  |  | BYX | 24 | 0.8\% | 2 | 1.8\% | 21 | 0.8\% | 1 | 11.1\% |
|  |  |  |  |  |  |  |  |  |  | NITEECN | 18 | 0.6\% | 3 | 2.7\% | 15 | 0.5\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | NITEEXST | 12 | 0.4\% | 2 | 1.8\% | 10 | 0.4\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | BEX | 10 | 0.4\% | 0 | 0.0\% | 10 | 0.4\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | BATS | 9 | 0.3\% | 1 | 0.9\% | 8 | 0.3\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | EDGEA | 5 | 0.2\% | 0 | 0.0\% | 5 | 0.2\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | PSX | 4 | 0.1\% | 1 | 0.9\% | 3 | 0.1\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | VIRTUDP | 4 | 0.1\% | 1 | 0.9\% | 3 | 0.1\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | IEX | 2 | 0.1\% | 1 | 0.9\% | 1 | 0.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | JANE | 2 | 0.1\% | 0 | 0.0\% | 2 | 0.1\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | AMEX | 1 | 0.0\% | 0 | 0.0\% | 1 | 0.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | CSFBCROSS | 1 | 0.0\% | 0 | 0.0\% | 1 | 0.0\% | 0 | 0.0\% |

## Securities listed on Amex or any other national securities exchange

| $\begin{aligned} & \text { Orders\# } \\ & \text { Non-Dir } \end{aligned}$ | $\begin{aligned} & \text { Orders\% } \\ & \text { Non-Dir } \end{aligned}$ | $\frac{\text { Orders\# }}{\text { Direct }}$ | $\frac{\text { Orders\% }}{\text { Direct }}$ | $\begin{gathered} \text { Market } \\ \text { orders\# } \end{gathered}$ | $\begin{gathered} \text { Market } \\ \text { orders\% } \end{gathered}$ | $\underset{\text { orders\# }}{\frac{\text { Limit }}{\text { orss }}}$ | $\begin{array}{r} \text { Limit } \\ \text { orders\% } \end{array}$ | $\begin{aligned} & \frac{\text { other }}{\text { orders\# }} \end{aligned}$ | $\begin{array}{r} \frac{\text { Other }}{} \\ \text { orders\% } \end{array}$ | Venue | $\begin{aligned} & \text { Routed } \\ & \text { orders\# } \end{aligned}$ | $\begin{gathered} \frac{\text { Routed }}{\text { orders\% }} \end{gathered}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \frac{\text { Limit }}{\text { orders\# }} \end{aligned}$ | $\begin{array}{r} \text { Limit } \\ \text { orders\% } \end{array}$ | $\begin{aligned} & \frac{\text { Other }}{} \\ & \text { orders\# } \end{aligned}$ | $\begin{array}{r} \text { Other } \\ \text { orders\% } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 100.0\% | 0 | 0.0\% | 4 | 18.2\% | 18 | 81.8\% | 0 | 0.0\% |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | ARCA | 13 | 59.1\% | 1 | 25.0\% | 12 | 66.7\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | IB ATS | 2 | 9.1\% | 2 | 50.0\% | , | 0.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | AMEX | 2 | 9.1\% | 0 | 0.0\% | - | 11.1\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | CITADELDP | 2 | 9.1\% | 0 | 0.0\% | 2 | 11.1\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | NITEEXST | 1 | 4.5\% | 0 | 0.0\% | 1 | 5.6\% | 0 | 0.0\% |

## Listed Options

| $\begin{aligned} & \text { Orders\# } \\ & \text { Non-Dir } \end{aligned}$ | Orders\% | $\frac{\text { Orders\# }}{\text { Direct }}$ | Orders\% Direct | Market orders\# | Market orders\% | $\begin{array}{r} \frac{\text { Limit }}{\text { orders\# }} \end{array}$ | $\begin{array}{r} \text { Limit } \\ \text { orders\% } \end{array}$ | $\begin{aligned} & \text { Other } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \frac{\text { Other }}{} \\ & \text { orders\% } \end{aligned}$ | Venue | Routed orders\# | Routed orders\% | Market orders\# | Market orders\% | $\begin{aligned} & \text { Limit } \\ & \text { orders\# } \end{aligned}$ | $\begin{array}{r} \frac{\text { Limit }}{\text { orders\% }} \end{array}$ | $\begin{array}{r} \text { Other } \\ \text { orders\# } \end{array}$ | $\begin{array}{r} \text { Other } \\ \text { orders\% } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 79 | 97.5\% | 2 | 2.5\% | 3 | 3.8\% | 71 | 89.9\% | 5 | 6.3\% |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | PSE | 23 | 29.1\% | 0 | 0.0\% | 21 | 29.6\% | 2 | 40.0\% |
|  |  |  |  |  |  |  |  |  |  | NASDAQOM | 18 | 22.8\% | 1 | 33.3\% | 17 | 23.9\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | AMEX | 11 | 13.9\% | 0 | 0.0\% | 11 | 15.5\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | PEARL | 7 | 8.9\% | 1 | 33.3\% | 6 | 8.5\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | GEMINI | 7 | 8.9\% | 0 | 0.0\% | 7 | 9.9\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | CBOE | 6 | 7.6\% | 0 | 0.0\% | 4 | 5.6\% | 2 | 40.0\% |
|  |  |  |  |  |  |  |  |  |  | ISE | 2 | 2.5\% | 1 | 33.3\% | 0 | 0.0\% | 1 | 20.0\% |
|  |  |  |  |  |  |  |  |  |  | CBOE2 | 2 | 2.5\% | 0 | 0.0\% | 2 | 2.8\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | BATS | 2 | 2.5\% | 0 | 0.0\% | 2 | 2.8\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | MIAX | 1 | 1.3\% | 0 | 0.0\% | 1 | 1.4\% | 0 | 0.0\% |

ExCHANGE NAME ABBREVIATIONS

| AMEX | NYSE MKT / NYSE Amex Options |
| :--- | :--- |
| ARCA | NYSE Arca |
| BATS | BATS Z-EXCHANGE |
| BEX | NASDAQ OMX BX |
| BYX | BATS Y Exchange |
| CBOE | Chicago Board Options Exchange |
| CBOE2 | Chicago Board Options Exchange 2 |
| CITADELDP Citadels Darkpool for US Equities |  |
| CSFBCROSS CSFB CrossFinder |  |
| DRCTEDGE | BATS DIRECT EDGE |
| EDGEA | BATS EDAA Exchange |
| GEMINI | ISE Gemini |
| IB ATS | Interactive Brokers Alternative Trading System |
| IEX | Investors Exchange |
| ISE | International Securities Exchange |
| ISLAND | Nasdaq |
| JANE | Jane Street Execution Services LLC |
| MIAX | Miami Options Exchange |
| NASDAQOM | Nasdaq Options Market |
| NITECN | KNIGHT LINK |
| NITEEXST | Knight Trading Exhaust Darkpool |
| NYSE | New York Stock Exchange |
| PDQ | PDQ ATS |
| PEARL | MIAX PEARL Exchange |
| PSE | NYSE Arca Options |
| PSX | Nasdaq OMX PSX |
| UBSDARK | UBS Dark Pool |
| VIRTUDP | Virtu Financial Capital Markets LLC |


| Orders\# Non-Dir | The number of total orders from the provider that were non-directed orders. |
| :---: | :---: |
| Orders\% Non-Dir | The percentage of total orders from the provider that were non-directed orders. |
| Orders\# Direct | The number of total orders from the provider that were directed orders. |
| Orders\% Direct | The percentage of total orders from the provider that were directed orders. |
| Market orders\# | The number of total non-directed customer orders that were market orders. |
| Market orders\% | The percentage of total non-directed customer orders that were market orders. |
| Limit orders\# | The number of total non-directed customer orders that were limit orders. |
| Limit orders\% | The percentage of total non-directed customer orders that were limit orders. |
| Other orders\# | The number of total non-directed customer orders that were special handling orders and any orders that must be executed on a particular tick or bid. |
| Other orders\% | The percentage of total non-directed customer orders that were special handling orders and any orders that must be executed on a particular tick or bid. |
| Venue | List of the ten venues to which the largest number of total non-directed orders were routed for execution and of any venue to which more than five percent or more of non-directed orders were routed for execution |
| Routed orders\# | The number of total non-directed orders routed to the venue |
| Routed orders\% | The percentage of total non-directed orders routed to the venue |
| Market orders\# | The number of total non-directed market orders routed to the venue |
| Market | The percentage of total non-directed market |

Limit The number of total non-directed limit orders routed to the
orders\#
venue
Limit
imit

The percentage of total non-directed limit orders routed to the venue
en of total non-directed other orders routed to the venue. Other orders include special handling orders and any orders that must be executed on a particular tick or bid

Other
The percentage of total non-directed other orders routed to the venue. Other orders include special handling orders and any orders that must be executed on a particular tick or

