## Exam School Task Force <br> 6.4.21

## Follow Up on Census Tract Tiers

- Consensus around 8 tiers and proportionality to children in grades 5-8
- Desire to ensure the tiers are more evenly sized
- Four tier options to review today:
- Option 1: Variables consistent with Chicago model
- Educational Attainment
- Median Household Income
- Percent of owner-occupied households
- Percent of households where a language other than English is spoken
- Percent of families headed by a single parent
- Option 2:
- Remove "percent of households where a language other than English is spoken"
- Option 3:
- Remove "percent of households where a language other than English is spoken"
- Remove Median Household Income and replace with percentage of persons below poverty
- Option 4:
- Remove "percent of households where a language other than English is spoken"
- Remove Median Household Income and replace with Index of Concentration at the Extremes [for all households]


## Two Additional Options Added

- Option 5:
- Remove Median Household Income and replace with percentage of persons below poverty
- Option 6:
- Remove Median Household Income and replace with Index of Concentration at the Extremes [for all households]

NOTE: a previous version of this presentation had the incorrect data included for tier options 4 and 6 . The tables in this presentation have been updated.

Index of Concentration at the Extremes (high income households versus low income households)


## Overall Comparison of Tier Options

|  | Tier Option 1: Chicago Variables |  |  |  | Tier Option 2: Remove Language Variable |  |  |  | Tier Option 3: Use Poverty In Place of MHHI, No Language Variable |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | $\begin{aligned} & \text { \# of } \\ & \text { Tracts } \end{aligned}$ | \# of School-Aged Children (ACS) | \# of SY20-21 <br> Applicants | $\begin{gathered} \text { \# of SY20-21 } \\ \text { Invitees } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { \# of } \\ & \text { Tracts } \end{aligned}$ | \# of School-Aged Children (ACS) | \# of SY20-21 <br> Applicants | \# of SY20-21 Invitees | \# of Tracts | \# of School-Aged Children (ACS) | \# of SY20-21 <br> Applicants | \# of SY20-21 Invitees |
| 1 | 15 | 2881 | 309 | 60 | 14 | 2763 | 316 | 60 | 14 | 2832 | 332 | 61 |
| 2 | 15 | 2910 | 350 | 70 | 13 | 2894 | 270 | 46 | 13 | 2840 | 249 | 47 |
| 3 | 10 | 2703 | 269 | 65 | 16 | 2841 | 317 | 69 | 17 | 2955 | 393 | 80 |
| 4 | 16 | 2977 | 347 | 81 | 11 | 2924 | 311 | 66 | 16 | 2985 | 269 | 66 |
| 5 | 17 | 2788 | 264 | 77 | 18 | 2840 | 322 | 104 | 14 | 2782 | 332 | 112 |
| 6 | 23 | 2711 | 324 | 120 | 28 | 2734 | 337 | 138 | 28 | 2772 | 294 | 124 |
| 7 | 32 | 2957 | 440 | 213 | 27 | 2895 | 437 | 217 | 28 | 2753 | 426 | 207 |
| 8 | 39 | 2802 | 475 | 332 | 40 | 2838 | 468 | 318 | 38 | 2810 | 483 | 321 |


| Tier | Tier Option 4: Use Index In Place of MHHI, No Language Variable |  |  |  | Tier Option 5: Use Poverty In Place of MHHI |  |  |  | Tier Option 6: Use Index In Place of MHHI |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | $\begin{aligned} & \text { \# of } \\ & \text { Tracts } \end{aligned}$ | \# of School-Aged Children (ACS) | \# of SY20-21 <br> Applicants | \# of SY20-21 Invitees | $\begin{aligned} & \text { \# of } \\ & \text { Tracts } \end{aligned}$ | \# of School-Aged Children (ACS) | \# of SY20-21 <br> Applicants | \# of SY20-21 Invitees | \# of <br> Tracts | \# of School-Aged Children (ACS) | \# of SY20-21 <br> Applicants | \# of SY20-21 Invitees |
| 1 | 14 | 2832 | 327 | 60 | 15 | 2868 | 293 | 55 | 16 | 3008 | 325 | 64 |
| 2 | 13 | 2840 | 283 | 46 | 14 | 2745 | 348 | 73 | 14 | 2783 | 334 | 66 |
| 3 | 17 | 2955 | 288 | 72 | 12 | 2908 | 321 | 63 | 10 | 2744 | 296 | 68 |
| 4 | 16 | 2985 | 292 | 56 | 11 | 2754 | 287 | 86 | 13 | 2719 | 261 | 53 |
| 5 | 14 | 2782 | 326 | 104 | 22 | 2920 | 286 | 78 | 18 | 2787 | 296 | 89 |
| 6 | 28 | 2772 | 357 | 145 | 22 | 2792 | 308 | 121 | 25 | 2929 | 353 | 135 |
| 7 | 28 | 2753 | 440 | 213 | 33 | 2899 | 467 | 220 | 31 | 2860 | 427 | 208 |
| 8 | 38 | 2810 | 465 | 322 | 39 | 2843 | 468 | 322 | 41 | 2899 | 486 | 335 |




Option 5: Use Poverty in place of MHHI


Option 6: Use Index in place of MHHI


## Simulations Set 1:

 20\% Distributed City-Wide, 80\% Distributed by Tier
## Simulations Set 1: 20\% City-wide, 80\% Tiers

- Assumptions within simulations:
- 1,000 invitations to distribute
- First $20 \%$ are distributed city-wide (200 invitations)
- Remaining 80\% are distributed amongst tiers (100 invitations per tier)
- Data set for the simulation:
- 7th grade applicants for SY20-21
- Re-calculated GPA using Fall grades only -- GPA is not rounded
- 50\% GPA, 50\% ISEE score
- Considerations to keep in mind:
- Simulation does not incorporate school preference
- Outstanding decision on which term(s) of grades to use for GPA
- Outstanding decision on use of assessment
- Does not incorporate any eligibility criteria -- if students had a GPA and test score, they are considered eligible
- Missing census tract data for students outside of Boston (16 students in this data set)


## Simulations Set 1: 20\% City-wide, 80\% Tiers (Updated)

## By Economic Status

| Economic Status | SY19-20 BPS <br> 6th Grade | SY20-21 <br> Applicants | SY20-21 <br> Actual | October 2020 <br> Simulation | SY21-22 Invitees |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Economically <br> Disadvantaged | $81 \%$ | $60 \%$ | $35 \%$ | $41 \%$ | $43 \%$ | $30 \%$ | $46 \%$ |
| Non-Economically <br> Disadvantaged | $19 \%$ | $40 \%$ | $65 \%$ | $59 \%$ | $57 \%$ | $70 \%$ | $54 \%$ |


|  | Simulations (20\% + 80\% Separate) |  |  |  |  |  |  | Simulations (20\% + 80\% Together) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Economic Status | 20\% | 80\% Tier <br> Option 1 | 80\% Tier <br> Option 2 | 80\% Tier <br> Option 3 | 80\% Tier <br> Option 4 | 80\% Tier <br> Option 5 | 80\% Tier Option 6 | $\begin{array}{\|c\|} \hline 20 \%+80 \% \\ \text { Tier Option } 1 \\ \hline \end{array}$ | $\begin{array}{\|c} \hline 20 \%+80 \% \\ \text { Tier Option } 2 \\ \hline \end{array}$ | $20 \%+80 \%$ <br> Tier Option 3 | $\begin{array}{c\|} \hline 20 \%+80 \% \\ \text { Tier Option } 4 \\ \hline \end{array}$ | $\begin{gathered} 20 \%+80 \% \\ \text { Tier Option } 5 \\ \hline \end{gathered}$ | $\begin{gathered} 20 \%+80 \% \\ \text { Tier Option } 6 \end{gathered}$ |
| Economically Disadvantaged | 20\% | 53.6\% | 54.3\% | 53.9\% | 53.4\% | 53.4\% | 53.6\% | 46.9\% | 47.4\% | 47.1\% | 46.7\% | 46.7\% | 46.9\% |
| Non-Economically Disadvantaged | 80\% | 46.4\% | 45.8\% | 46.1\% | 46.6\% | 46.6\% | 46.4\% | 53.1\% | 52.6\% | 52.9\% | 53.3\% | 53.3\% | 53.1\% |

## Simulations Set 1: 20\% City-wide, 80\% Tiers

## By Zip Code

| Zip Code | Neighborhood | SY19-20 BPS 6th Grade | SY20-21 <br> Applicants | SY20-21 <br> Invitees | October 2020 Simulation | SY21-22 Invitees |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Overall | 20\% | 80\% |
| 2108 | Beacon Hill | 0.1\% | 0.1\% | 0.1\% | 0.4\% | 0.6\% | 1.5\% | 0.4\% |
| 2109 | Downtown | 0.2\% | 0.3\% | 0.7\% | 0.6\% | 0.2\% | 0.5\% | 0.1\% |
| 2110 | Downtown | 0.2\% | 0.3\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% |
| 2111 | Chinatown | 1.3\% | 1.5\% | 2.3\% | 1.0\% | 0.7\% | 0.5\% | 0.8\% |
| 2113 | North End | 0.2\% | 0.3\% | 0.7\% | 0.5\% | 0.2\% | 0.0\% | 0.3\% |
| 2114 | Beacon Hill / West End | 0.3\% | 0.8\% | 1.9\% | 1.4\% | 0.7\% | 1.0\% | 0.6\% |
| 2115 | Longwood/Fenway | 1.1\% | 1.2\% | 1.4\% | 1.6\% | 1.0\% | 0.0\% | 1.3\% |
| 2116 | Back Bay | 0.7\% | 1.5\% | 2.6\% | 2.4\% | 1.3\% | 1.5\% | 1.3\% |
| 2118 | South End | 4.2\% | 3.8\% | 3.5\% | 3.2\% | 2.8\% | 1.5\% | 3.1\% |
| 2119 | Roxbury | 6.0\% | 4.8\% | 2.6\% | 5.8\% | 5.1\% | 2.6\% | 5.8\% |
| 2120 | Roxbury | 2.0\% | 1.6\% | 1.6\% | 1.4\% | 1.1\% | 0.0\% | 1.4\% |
| 2121 | Dorchester | 9.4\% | 7.7\% | 2.6\% | 7.2\% | 6.9\% | 3.6\% | 7.7\% |
| 2122 | Dorchester | 5.8\% | 6.6\% | 6.1\% | 4.9\% | 4.9\% | 7.2\% | 4.4\% |
| 2124 | Dorchester | 12.4\% | 11.9\% | 8.2\% | 11.8\% | 11.2\% | 8.7\% | 11.8\% |
| 2125 | Dorchester | 6.7\% | 6.2\% | 4.6\% | 6.8\% | 6.1\% | 6.7\% | 5.9\% |
| 2126 | Mattapan | 5.4\% | 4.5\% | 2.0\% | 5.5\% | 5.2\% | 4.1\% | 5.5\% |
| 2127 | South Boston | 3.4\% | 3.8\% | 3.3\% | 4.1\% | 3.6\% | 2.1\% | 4.0\% |
| 2128 | East Boston | 11.3\% | 9.0\% | 5.6\% | 7.7\% | 7.7\% | 4.6\% | 8.5\% |
| 2129 | Charlestown | 3.8\% | 3.8\% | 5.5\% | 3.3\% | 3.6\% | 6.7\% | 2.8\% |
| 2130 | Jamaica Plain | 4.0\% | 4.3\% | 7.5\% | 5.6\% | 5.5\% | 8.2\% | 4.9\% |
| 2131 | Roslindale | 6.0\% | 6.3\% | 9.2\% | 6.1\% | 6.9\% | 9.7\% | 6.2\% |
| 2132 | West Roxbury | 3.9\% | 6.8\% | 13.0\% | 6.0\% | 7.1\% | 16.9\% | 4.6\% |
| 2134 | Allston | 1.3\% | 1.3\% | 1.7\% | 1.2\% | 1.1\% | 1.0\% | 1.2\% |
| 2135 | Brighton | 2.9\% | 3.4\% | 5.1\% | 3.5\% | 3.0\% | 0.5\% | 3.6\% |
| 2136 | Hyde Park | 6.9\% | 7.5\% | 6.5\% | 7.7\% | 6.9\% | 4.6\% | 7.4\% |
| 2163 | Allston | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% |
| 2199 | Back Bay | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 2210 | South Boston Waterfront | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.2\% | 0.5\% | 0.1\% |
| 2215 | Fenway/Kenmore | 0.2\% | 0.5\% | 0.8\% | 0.6\% | 0.2\% | 0.0\% | 0.3\% |
| 2467 | Chestnut Hill | 0.1\% | 0.2\% | 0.3\% | 0.0\% | 0.4\% | 1.0\% | 0.3\% |
| 9999 | Homeless/DCF | Not used |  |  |  | 5.4\% | 4.6\% | 5.6\% |

Simulations Set 1: 20\% City-wide, 80\% Tiers (Updated)

## By Zip Code

| Zip Code | Neighborhood | Simulations (20\% + 80\% Separate) |  |  |  |  |  |  | Simulations (20\% + 80\% Together) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 20\% | 80\% Tier <br> Option 1 | 80\% Tier Option 2 | 80\% Tier <br> Option 3 | 80\% Tier Option 4 | 80\% Tier Option 5 | 80\% Tier <br> Option 6 | $\begin{array}{\|c\|} \hline 20 \%+80 \% \\ \text { Tier Option } 1 \\ \hline \end{array}$ | $\begin{gathered} 20 \%+80 \% \\ \text { Tier Option } 2 \end{gathered}$ | $20 \%+80 \%$ <br> Tier Option 3 | $20 \%+80 \%$ <br> Tier Option 4 | $20 \%+80 \%$ <br> Tier Option 5 | $20 \%+80 \%$ <br> Tier Option 6 |
| 2108 | Beacon Hill | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 2109 | Downtown | 1.5\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.6\% | 0.6\% | 0.6\% | 0.6\% | 0.6\% | 0.6\% |
| 2110 | Downtown | 2.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.4\% | 0.4\% | 0.5\% | 0.4\% | 0.5\% | 0.4\% |
| 2111 | Chinatown | 1.5\% | 2.1\% | 2.1\% | 1.8\% | 2.1\% | 2.1\% | 2.1\% | 2.0\% | 2.0\% | 1.7\% | 2.0\% | 2.0\% | 2.0\% |
| 2113 | North End | 2.0\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.7\% | 0.7\% | 0.7\% | 0.7\% | 0.7\% | 0.7\% |
| 2114 | Beacon Hill / West End | 4.0\% | 0.9\% | 1.0\% | 1.0\% | 1.0\% | 1.0\% | 0.9\% | 1.5\% | 1.6\% | 1.6\% | 1.6\% | 1.6\% | 1.5\% |
| 2115 | Longwood/Fenway | 2.0\% | 1.6\% | 1.6\% | 1.6\% | 1.6\% | 1.6\% | 1.6\% | 1.7\% | 1.7\% | 1.7\% | 1.7\% | 1.7\% | 1.7\% |
| 2116 | Back Bay | 6.5\% | 1.1\% | 1.1\% | 1.1\% | 1.1\% | 1.1\% | 1.0\% | 2.2\% | 2.2\% | 2.2\% | 2.2\% | 2.2\% | 2.1\% |
| 2118 | South End | 2.0\% | 4.1\% | 4.0\% | 4.1\% | 3.4\% | 3.9\% | 3.6\% | 3.7\% | 3.6\% | 3.7\% | 3.1\% | 3.5\% | 3.3\% |
| 2119 | Roxbury | 0.5\% | 5.3\% | 5.6\% | 5.6\% | 5.5\% | 5.3\% | 5.4\% | 4.3\% | 4.6\% | 4.6\% | 4.5\% | 4.3\% | 4.4\% |
| 2120 | Roxbury | 1.5\% | 1.6\% | 1.6\% | 1.5\% | 1.6\% | 2.1\% | 1.5\% | 1.6\% | 1.6\% | 1.5\% | 1.6\% | 2.0\% | 1.5\% |
| 2121 | Dorchester | 1.0\% | 6.3\% | 7.0\% | 6.6\% | 6.8\% | 5.9\% | 6.1\% | 5.2\% | 5.8\% | 5.5\% | 5.6\% | 4.9\% | 5.1\% |
| 2122 | Dorchester | 6.5\% | 7.1\% | 7.3\% | 6.3\% | 8.0\% | 7.6\% | 7.1\% | 7.0\% | 7.1\% | 6.3\% | 7.7\% | 7.4\% | 7.0\% |
| 2124 | Dorchester | 7.0\% | 10.4\% | 10.9\% | 10.9\% | 11.3\% | 10.6\% | 10.1\% | 9.7\% | 10.1\% | 10.1\% | 10.4\% | 9.9\% | 9.5\% |
| 2125 | Dorchester | 3.0\% | 6.8\% | 7.3\% | 7.4\% | 7.6\% | 6.9\% | 7.0\% | 6.0\% | 6.4\% | 6.5\% | 6.7\% | 6.1\% | 6.2\% |
| 2126 | Mattapan | 1.0\% | 3.8\% | 4.4\% | 4.4\% | 4.6\% | 3.6\% | 4.1\% | 3.2\% | 3.7\% | 3.7\% | 3.9\% | 3.1\% | 3.5\% |
| 2127 | South Boston | 2.5\% | 2.6\% | 2.6\% | 2.8\% | 2.9\% | 2.8\% | 2.9\% | 2.6\% | 2.6\% | 2.7\% | 2.8\% | 2.7\% | 2.8\% |
| 2128 | East Boston | 1.5\% | 11.1\% | 9.3\% | 8.9\% | 9.3\% | 10.5\% | 11.5\% | 9.2\% | 7.7\% | 7.4\% | 7.7\% | 8.7\% | 9.5\% |
| 2129 | Charlestown | 7.0\% | 3.8\% | 3.6\% | 4.0\% | 3.6\% | 3.8\% | 3.6\% | 4.4\% | 4.3\% | 4.6\% | 4.3\% | 4.4\% | 4.3\% |
| 2130 | Jamaica Plain | 11.0\% | 4.4\% | 4.3\% | 4.9\% | 4.5\% | 4.5\% | 4.4\% | 5.7\% | 5.6\% | 6.1\% | 5.8\% | 5.8\% | 5.7\% |
| 2131 | Roslindale | 8.0\% | 5.6\% | 5.9\% | 5.6\% | 4.8\% | 5.6\% | 5.5\% | 6.1\% | 6.3\% | 6.1\% | 5.4\% | 6.1\% | 6.0\% |
| 2132 | West Roxbury | 17.0\% | 6.1\% | 6.3\% | 5.9\% | 6.3\% | 6.1\% | 6.1\% | 8.3\% | 8.4\% | 8.1\% | 8.4\% | 8.3\% | 8.3\% |
| 2134 | Allston | 0.5\% | 2.6\% | 2.3\% | 2.8\% | 2.3\% | 2.3\% | 2.3\% | 2.2\% | 1.9\% | 2.3\% | 1.9\% | 1.9\% | 1.9\% |
| 2135 | Brighton | 4.0\% | 4.5\% | 4.0\% | 4.9\% | 4.0\% | 4.4\% | 4.4\% | 4.4\% | 4.0\% | 4.7\% | 4.0\% | 4.3\% | 4.3\% |
| 2136 | Hyde Park | 4.5\% | 6.4\% | 6.3\% | 6.3\% | 6.3\% | 6.4\% | 7.0\% | 6.0\% | 5.9\% | 5.9\% | 5.9\% | 6.0\% | 6.5\% |
| 2163 | Allston | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 2199 | Back Bay | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 2210 | South Boston Waterfront | 0.5\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% |
| 2215 | Fenway/Kenmore | 1.5\% | 0.6\% | 0.5\% | 0.5\% | 0.5\% | 0.6\% | 0.5\% | 0.8\% | 0.7\% | 0.7\% | 0.7\% | 0.8\% | 0.7\% |
| 2467 | Chestnut Hill | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 9999 | Homeless/DCF |  |  |  | Not used |  |  |  |  |  | Not | used |  |  |

## Simulations Set 1: 20\% City-wide, 80\% Tiers (Updated)

## By Race

| Race | SY19-20 BPS 6th Grade | SY20-21 <br> Applicants | SY20-21 <br> Invitees | October 2020 Simulation | SY21-22 Invitees |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Overall | 20\% | 80\% |
| Asian | 9\% | 13\% | 21\% | 17\% | 18\% | 15\% | 18\% |
| Black | 30\% | 27\% | 13\% | 22\% | 23\% | 14\% | 25\% |
| Latinx | 45\% | 35\% | 21\% | 24\% | 23\% | 18\% | 24\% |
| Multi-Race/Other | 3\% | 4\% | 5\% | 5\% | 6\% | 7\% | 5\% |
| White | 12\% | 21\% | 40\% | 32\% | 31\% | 46\% | 27\% |


|  | Simulations (20\% + 80\% Separate) |  |  |  |  |  |  | Simulations (20\% + 80\% Together) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race | 20\% | 80\% Tier <br> Option 1 | 80\% Tier <br> Option 2 | 80\% Tier Option 3 | 80\% Tier <br> Option 4 | 80\% Tier <br> Option 5 | 80\% Tier <br> Option 6 | $\begin{array}{\|c\|} \hline 20 \%+80 \% \\ \text { Tier Option } 1 \\ \hline \end{array}$ | $\begin{gathered} \hline 20 \%+80 \% \\ \text { Tier Option } 2 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 20 \%+80 \% \\ \text { Tier Option } 3 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 20 \%+80 \% \\ \text { Tier Option } 4 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 20 \%+80 \% \\ \text { Tier Option } 5 \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline 20 \%+80 \% \\ \text { Tier Option } 6 \\ \hline \end{array}$ |
| Asian | 23\% | 19\% | 19\% | 19\% | 19\% | 20\% | 19\% | 19.7\% | 19.8\% | 19.5\% | 19.5\% | 20.2\% | 19.5\% |
| Black | 6\% | 21\% | 23\% | 23\% | 23\% | 22\% | 22\% | 18.2\% | 19.6\% | 19.6\% | 19.9\% | 18.6\% | 18.5\% |
| Latinx | 11\% | 33\% | 31\% | 31\% | 31\% | 32\% | 33\% | 28.7\% | 27.0\% | 27.1\% | 27.1\% | 28.1\% | 28.8\% |
| Multi-Race/Other | 5\% | 4\% | 4\% | 4\% | 4\% | 4\% | 4\% | 4.3\% | 4.4\% | 4.3\% | 4.2\% | 4.3\% | 4.3\% |
| White | 56\% | 23\% | 23\% | 23\% | 23\% | 22\% | 22\% | 29.1\% | 29.2\% | 29.5\% | 29.3\% | 28.8\% | 28.9\% |

## Simulations Set 2: <br> 100\% Distributed by Tier

## Simulations Set 2: 100\% Tiers

- Assumptions within simulations:
- 1,000 invitations to distribute
- $100 \%$ of invitations are distributed by tier ( 125 invitations per tier)
- Data set for the simulation:
- 7th grade applicants for SY20-21
- Re-calculated GPA using Fall grades only -- GPA is not rounded
- 50\% GPA, $50 \%$ ISEE score
- Considerations to keep in mind:
- Simulation does not incorporate school preference
- Outstanding decision on which term(s) of grades to use for GPA
- Outstanding decision on use of assessment
- Does not incorporate any eligibility criteria -- if students had a GPA and test score, they are considered eligible
- Missing census tract data for students outside of Boston (16 students in this data set)


## Simulations Set 2: 100\% Tiers (Updated)

## By Economic Status

| Economic Status | SY19-20 BPS <br> 6th Grade | SY20-21 <br> Applicants | $\begin{gathered} \text { SY20-21 } \\ \text { Actual } \end{gathered}$ | October 2020 <br> Simulation | SY21-22 Invitees |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Overall | 20\% | 80\% |
| Economically Disadvantaged | 81\% | 60\% | 35\% | 41\% | 43\% | 30\% | 46\% |
| Non-Economically Disadvantaged | 19\% | 40\% | 65\% | 59\% | 57\% | 70\% | 54\% |


|  | Simulations (100\% Tiers Distribution) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Economic Status | 100\% Tier <br> Option 1 | 100\% Tier <br> Option 2 | 100\% Tier <br> Option 3 | 100\% Tier <br> Option 4 | 100\% Tier <br> Option 5 | 100\% Tier <br> Option 6 |
| Economically <br> Disadvantaged | $52.3 \%$ | $52.2 \%$ | $52.1 \%$ | $51.9 \%$ | $51.4 \%$ | $52.1 \%$ |
| Non-Economically <br> Disadvantaged | $47.7 \%$ | $47.8 \%$ | $47.9 \%$ | $48.1 \%$ | $48.6 \%$ | $47.9 \%$ |

## Simulations Set 2: 100\% Tiers

## By Zip Code

| Zip Code | Neighborhood | SY19-20 BPS 6th Grade | SY20-21 <br> Applicants | SY20-21 <br> Invitees | October 2020 <br> Simulation | SY21-22 Invitees |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Overall | 20\% | 80\% |
| 2108 | Beacon Hill | 0.1\% | 0.1\% | 0.1\% | 0.4\% | 0.6\% | 1.5\% | 0.4\% |
| 2109 | Downtown | 0.2\% | 0.3\% | 0.7\% | 0.6\% | 0.2\% | 0.5\% | 0.1\% |
| 2110 | Downtown | 0.2\% | 0.3\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% |
| 2111 | Chinatown | 1.3\% | 1.5\% | 2.3\% | 1.0\% | 0.7\% | 0.5\% | 0.8\% |
| 2113 | North End | 0.2\% | 0.3\% | 0.7\% | 0.5\% | 0.2\% | 0.0\% | 0.3\% |
| 2114 | Beacon Hill / West End | 0.3\% | 0.8\% | 1.9\% | 1.4\% | 0.7\% | 1.0\% | 0.6\% |
| 2115 | Longwood/Fenway | 1.1\% | 1.2\% | 1.4\% | 1.6\% | 1.0\% | 0.0\% | 1.3\% |
| 2116 | Back Bay | 0.7\% | 1.5\% | 2.6\% | 2.4\% | 1.3\% | 1.5\% | 1.3\% |
| 2118 | South End | 4.2\% | 3.8\% | 3.5\% | 3.2\% | 2.8\% | 1.5\% | 3.1\% |
| 2119 | Roxbury | 6.0\% | 4.8\% | 2.6\% | 5.8\% | 5.1\% | 2.6\% | 5.8\% |
| 2120 | Roxbury | 2.0\% | 1.6\% | 1.6\% | 1.4\% | 1.1\% | 0.0\% | 1.4\% |
| 2121 | Dorchester | 9.4\% | 7.7\% | 2.6\% | 7.2\% | 6.9\% | 3.6\% | 7.7\% |
| 2122 | Dorchester | 5.8\% | 6.6\% | 6.1\% | 4.9\% | 4.9\% | 7.2\% | 4.4\% |
| 2124 | Dorchester | 12.4\% | 11.9\% | 8.2\% | 11.8\% | 11.2\% | 8.7\% | 11.8\% |
| 2125 | Dorchester | 6.7\% | 6.2\% | 4.6\% | 6.8\% | 6.1\% | 6.7\% | 5.9\% |
| 2126 | Mattapan | 5.4\% | 4.5\% | 2.0\% | 5.5\% | 5.2\% | 4.1\% | 5.5\% |
| 2127 | South Boston | 3.4\% | 3.8\% | 3.3\% | 4.1\% | 3.6\% | 2.1\% | 4.0\% |
| 2128 | East Boston | 11.3\% | 9.0\% | 5.6\% | 7.7\% | 7.7\% | 4.6\% | 8.5\% |
| 2129 | Charlestown | 3.8\% | 3.8\% | 5.5\% | 3.3\% | 3.6\% | 6.7\% | 2.8\% |
| 2130 | Jamaica Plain | 4.0\% | 4.3\% | 7.5\% | 5.6\% | 5.5\% | 8.2\% | 4.9\% |
| 2131 | Roslindale | 6.0\% | 6.3\% | 9.2\% | 6.1\% | 6.9\% | 9.7\% | 6.2\% |
| 2132 | West Roxbury | 3.9\% | 6.8\% | 13.0\% | 6.0\% | 7.1\% | 16.9\% | 4.6\% |
| 2134 | Allston | 1.3\% | 1.3\% | 1.7\% | 1.2\% | 1.1\% | 1.0\% | 1.2\% |
| 2135 | Brighton | 2.9\% | 3.4\% | 5.1\% | 3.5\% | 3.0\% | 0.5\% | 3.6\% |
| 2136 | Hyde Park | 6.9\% | 7.5\% | 6.5\% | 7.7\% | 6.9\% | 4.6\% | 7.4\% |
| 2163 | Allston | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% |
| 2199 | Back Bay | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 2210 | South Boston Waterfront | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.2\% | 0.5\% | 0.1\% |
| 2215 | Fenway/Kenmore | 0.2\% | 0.5\% | 0.8\% | 0.6\% | 0.2\% | 0.0\% | 0.3\% |
| 2467 | Chestnut Hill | 0.1\% | 0.2\% | 0.3\% | 0.0\% | 0.4\% | 1.0\% | 0.3\% |
| 9999 | Homeless/DCF | Not used |  |  |  | 5.4\% | 4.6\% | 5.6\% |

## Simulations Set 2: 100\% Tiers

By Zip Code

| Zip Code | Neighborhood | Simulations (100\% Tiers Distribution) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 100\% Tier Option 1 | 100\% Tier Option 2 | 100\% Tier Option 3 | 100\% Tier Option 4 | 100\% Tier Option 5 | 100\% Tier Option 6 |
| 2108 | Beacon Hill | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 2109 | Downtown | 0.5\% | 0.5\% | 0.6\% | 0.6\% | 0.6\% | 0.5\% |
| 2110 | Downtown | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% | 0.4\% |
| 2111 | Chinatown | 1.9\% | 1.9\% | 2.0\% | 1.9\% | 2.0\% | 1.9\% |
| 2113 | North End | 0.6\% | 0.6\% | 0.6\% | 0.6\% | 0.6\% | 0.6\% |
| 2114 | Beacon Hill / West End | 1.4\% | 1.4\% | 1.6\% | 1.5\% | 1.6\% | 1.4\% |
| 2115 | Longwood/Fenway | 1.9\% | 1.9\% | 1.7\% | 1.9\% | 2.0\% | 1.6\% |
| 2116 | Back Bay | 1.7\% | 1.7\% | 1.6\% | 1.7\% | 1.6\% | 1.7\% |
| 2118 | South End | 3.7\% | 3.7\% | 3.9\% | 3.2\% | 3.4\% | 3.3\% |
| 2119 | Roxbury | 4.5\% | 5.0\% | 4.9\% | 5.1\% | 4.6\% | 4.6\% |
| 2120 | Roxbury | 1.9\% | 1.9\% | 1.9\% | 1.9\% | 2.2\% | 1.9\% |
| 2121 | Dorchester | 6.5\% | 8.0\% | 7.0\% | 7.3\% | 6.1\% | 6.5\% |
| 2122 | Dorchester | 7.8\% | 7.3\% | 6.8\% | 8.3\% | 8.2\% | 8.1\% |
| 2124 | Dorchester | 10.2\% | 10.5\% | 11.0\% | 11.0\% | 10.4\% | 10.0\% |
| 2125 | Dorchester | 6.3\% | 6.8\% | 7.0\% | 6.6\% | 6.3\% | 6.6\% |
| 2126 | Mattapan | 4.0\% | 4.7\% | 4.1\% | 4.8\% | 3.8\% | 4.1\% |
| 2127 | South Boston | 2.6\% | 2.8\% | 2.5\% | 2.8\% | 3.0\% | 3.1\% |
| 2128 | East Boston | 11.1\% | 9.4\% | 8.5\% | 9.5\% | 10.4\% | 11.7\% |
| 2129 | Charlestown | 3.0\% | 3.5\% | 3.7\% | 3.5\% | 3.0\% | 2.9\% |
| 2130 | Jamaica Plain | 5.1\% | 4.9\% | 5.6\% | 5.1\% | 5.3\% | 5.0\% |
| 2131 | Roslindale | 5.1\% | 5.3\% | 5.3\% | 4.1\% | 5.1\% | 4.8\% |
| 2132 | West Roxbury | 5.8\% | 5.8\% | 5.6\% | 6.0\% | 5.9\% | 5.7\% |
| 2134 | Allston | 2.3\% | 1.8\% | 2.5\% | 1.8\% | 2.2\% | 1.9\% |
| 2135 | Brighton | 3.9\% | 3.4\% | 4.1\% | 3.4\% | 4.0\% | 3.7\% |
| 2136 | Hyde Park | 6.5\% | 5.7\% | 6.0\% | 6.0\% | 6.1\% | 6.8\% |
| 2163 | Allston | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 2199 | Back Bay | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 2210 | South Boston Waterfront | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% |
| 2215 | Fenway/Kenmore | 0.9\% | 0.7\% | 0.7\% | 0.7\% | 0.8\% | 0.8\% |
| 2467 | Chestnut Hill | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 9999 | Homeless/DCF |  |  | Not | used |  |  |

## Simulations Set 2: 100\% Tiers

## By Race

| Race | SY19-20 BPS <br> 6th Grade | SY20-21 <br> Applicants | SY20-21 <br> Invitees | October 2020 <br> Simulation | SY21-22 Invitees |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall | $\mathbf{2 0 \%}$ | $\mathbf{8 0 \%}$ |  |  |  |  |  |
| Asian | $9 \%$ | $13 \%$ | $21 \%$ | $17 \%$ | $18 \%$ | $15 \%$ | $18 \%$ |
| Black | $30 \%$ | $27 \%$ | $13 \%$ | $22 \%$ | $23 \%$ | $14 \%$ | $25 \%$ |
| Latinx | $45 \%$ | $35 \%$ | $21 \%$ | $24 \%$ | $23 \%$ | $18 \%$ | $24 \%$ |
| Multi-Race/Other | $3 \%$ | $4 \%$ | $5 \%$ | $5 \%$ | $6 \%$ | $7 \%$ | $5 \%$ |
| White | $12 \%$ | $21 \%$ | $40 \%$ | $32 \%$ | $31 \%$ | $46 \%$ | $27 \%$ |


| Race | Simulations (100\% Tiers Distribution) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 0 0 \%}$ Tier <br> Option 1 | $\mathbf{1 0 0 \%}$ Tier <br> Option 2 | $\mathbf{1 0 0 \%}$ Tier <br> Option 3 | $\mathbf{1 0 0 \%}$ Tier <br> Option 4 | $\mathbf{1 0 0 \%}$ Tier <br> Option 5 | $\mathbf{1 0 0 \%}$ Tier <br> Option 6 |
|  | $19.1 \%$ | $18.6 \%$ | $19.1 \%$ | $18.6 \%$ | $19.6 \%$ | $18.8 \%$ |
| Black | $21.0 \%$ | $22.3 \%$ | $22.0 \%$ | $22.3 \%$ | $21.0 \%$ | $21.1 \%$ |
| Latinx | $31.9 \%$ | $30.5 \%$ | $30.0 \%$ | $30.6 \%$ | $31.0 \%$ | $32.3 \%$ |
| Multi-Race/Other | $3.8 \%$ | $3.9 \%$ | $3.7 \%$ | $3.8 \%$ | $3.8 \%$ | $3.8 \%$ |
| White | $24.2 \%$ | $24.7 \%$ | $25.2 \%$ | $24.7 \%$ | $24.6 \%$ | $24.0 \%$ |

