**The CANOPY Project**:

Algorithm-Assisted Resource Allocation Tools for City Planners

Notation Reference Sheet

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Alphabetical list of elements of notation

|  |  |
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| C | Cost available for funding creation of new providers, where |
|  | Binary indication of whether has selected |
|  | Unobserved error in utility function, distributed i.i.d. extreme value |
|  | Vector of utility weights for agent corresponding to vector of agent-alternative characteristics , distributed |
| g | Distribution of utility weight parameters , governed by parameters |
|  | Number of mutually exclusive alternatives generically indexed by and , with indicating no active choice |
|  | Factor related to agent ’s likelihood of winning an enrollment lottery |
|  | Contribution of agent-alternative pair to overall likelihood, conditional on |
|  | Number of agents enrolling with alternative |
|  | Number of agents, generically indexed by |
|  | Planner’s objective weight for enrolling agent with person/alternative combination of factors |
|  | Probability of agent being able to enroll in alternative conditional on interest |
|  | Probability that agent is interested in enrolling in alternative |
|  | Probability that agent enrolls in alternative , as a fixed point given all lotteries for oversubscription |
|  | Resource divided among alternatives that influences desirability where , |
|  | Number of slots that can be allocated across providers, where , |
|  | Parameters governing the distribution of agent preferences |
|  | Utility weight corresponding to terms |
|  | Observed information about alternative |
|  | Observed information about agent |
|  | Indirect utility of choosing alternative for agent , equals |
|  | Combined characteristics, e.g. travel time between residence and provider. Is a function of and |

Project GitHub repository: <http://www.github.com/nsmader/CANOPY>