For Online Publication–Appendix: Omitted Proofs

A.1 Proposition 1

Proof. Let $\succeq$ be the common preference that doctors have over hospitals. Note that DA is the same as serial dictatorship (SD) with the order dictated by hospital rank in $\succeq$.

Consider a doctor d assigned to $h = \mu^{DA}(d)$ in the rth round of SD. The rank-order of h in d's preference is therefore r. If $k \leq r$ then we are done, as the rank-order of $\mu^I(d)$ in d's truncated preference is at most k.

Suppose that $r < k$. Two observations follow. First, consider the interview stage and a hospital $h = \mu^{DA}(d)$ matched to d in stage $r' < k$ of DA. When choosing whom to interview, h can choose any doctor, as all of them would have received strictly fewer than k interview requests when they get a request from h. So the hospital choosing at stage r' of DA will interview the highest k doctors in her preference.

Second, $\mu^{DA}(h) = \mu^I(h)$ for the hospital h choosing at round r.[20] This is shown by induction: The statement is obviously true for the highest ranked hospital. Suppose that $\mu^{DA}(h) = \mu^I(h)$ for all hospitals choosing at any stage $r' < r$. If h is the r-ranked hospital then the set of doctors available to h in the DA stage of Int-DA is D, by our first observation, minus the choices of hospitals with rank-order $r' < r$. By the inductive hypothesis the doctors chosen by the hospitals with rank-order $r' < r$ is the same as DA. So the set of available doctors to hospital h is the same in Int-DA as in DA. Thus $\mu^{DA}(h) = \mu^I(h)$. $\|$

A.2 Proposition 3

Proof. Specifically, we show that there are constants N, K, K', K'' and K''' that do not depend on θ and π, such that for all

$$n \geq \max\{\bar{N}, \frac{\ln(\pi/4)}{K}, \frac{\ln(4/\pi)}{2\delta^2}, (\frac{\theta}{2} + K')^{-1}, (\frac{12}{\theta})^4, \left(\frac{\log(1-\frac{\pi}{2})}{\log K''} + 3\right)^4 K''',\}$$

the statement in Proposition 2 holds.

[20] Incidentally this may not happen for hospitals choosing at round $r' > k$. It is easy to come up with examples.

The market size in the proof of Proposition 2 is determined from inequalities (4)-(7). These are the starting point of the proof. Using the bounds in Lee (2016), these mean that we need to choose n such that

$$
\begin{aligned}
-2[p(c^\star) - \frac{k_n}{n}]^2 n \leq \ln(\frac{\pi}{4n}) \quad (9) \\
-2\delta^2 n < \ln(\frac{\pi}{4}), \quad (10) \\
\frac{1}{\frac{\theta}{2} - (1 - G(c^\star) + \delta)} < n \quad (11) \\
\frac{2}{n}\left(\frac{1}{n^{1/4}} - 3\right)\sqrt{n}\log(n) + \frac{6}{n^{1/4}} > \frac{\theta}{2} \quad (12) \\
(1 - g_n)^{2n^{1/4}-4} \geq 1 - \frac{\pi}{2}, \quad (13)
\end{aligned}
$$

where g_n is $o(e^{-\sqrt{n}\log n})$

For (9), choose N_0 and K_0 such that if $n \geq N_0$ then $(p(c^\star) - k_n/n)^2 \leq K_0$. This is possible given the hypothesis that $\limsup k_n/n < 1$. Next, let $N_1 \geq N_0$ and K_1 be such that, for all $n \geq N_1$, $2K_0 n - \ln n \geq K_1 n$. Then we need that

$$
K_2 n \geq \ln(\frac{4}{\pi}) \quad (14)
$$

For (10) and (11), we have

$$
\begin{aligned}
n > \frac{\ln(4/\pi)}{2\delta^2} \quad (15) \\
n \geq \frac{1}{\frac{\theta}{2} - (1 - G(c^\star)) - \delta} \quad (16)
\end{aligned}
$$

For (12) we need that

$$
\begin{aligned}
& \frac{2\sqrt{n}\log n}{n^{5/4}} - \frac{6\sqrt{n}\log n}{n} + \frac{6}{n^{1/4}} < \frac{\theta}{2} \\
\Longleftrightarrow\ & \frac{2\log n}{n^{1/4}}\left(\frac{1}{\sqrt{n}} - \frac{3}{n^{1/4}}\right) + \frac{6}{n^{1/4}} < \frac{\theta}{2}
\end{aligned}
$$

Let $N_2 \geq N_1$ be such that for all $n \geq N_2$, $\frac{1}{\sqrt{n}} - \frac{3}{n^{1/4}} \leq 0$. Then all we need is that

$\frac{6}{n^{1/4}} < \frac{\theta}{2}$, or that

$$n \geq (\frac{12}{\theta})^4. \tag{17}$$

For (13), fix $N_3 \geq N_2$ and K_4 such that for all $n \geq N_3$ $1 - g_n \geq K_4$. So we need to obtain $\log(1-\frac{\pi}{2})) \leq (2n^{1/4} - 3)\log K_3$. That is,

$$n \geq \left(\frac{\log(1-\frac{\pi}{2})}{\log K_3} + 3\right)^4 \frac{1}{16} \tag{18}$$

Set $\bar{N} = N_3$, $K = K_2$ $K' = (1 - G(c^\star)) + \delta$, $K'' = K''' = 1/16$. Then the calculations above correspond to (14), (15), (16), (17), and (18). $\|$

B For Online Publication–Appendix: Additional Figures

B.1 Historical data form the NRMP

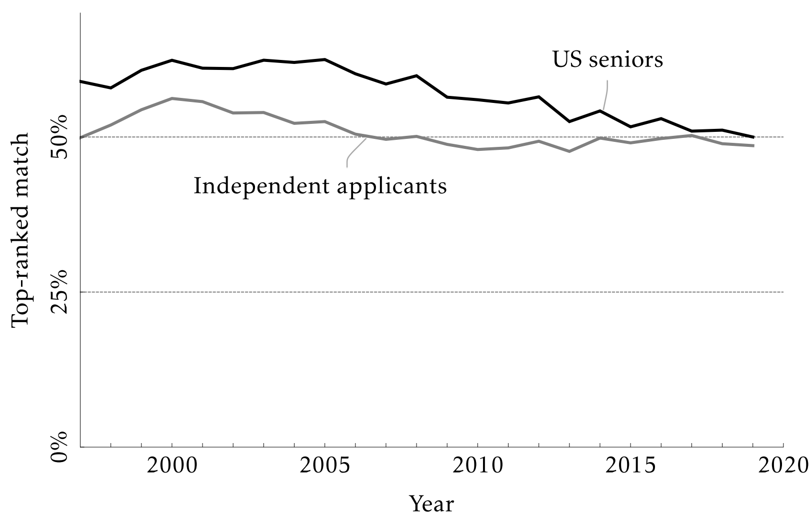


FIGURE B.1: NRMP residents matched to first-ranked program (conditional on matching)

B.2 Simulation summary

In each of our simulations we considered all possible combinations of $(\lambda_D, \lambda_H) \in \{1/20, 1/4, 1/2, 3/4, 19/20\}^2$ to get a representative span for the effect. In our balanced simulations we consider matching N doctors to N hospitals with $k = k' = 5$ for all combinations of $N \in \{50, 100, 200, 500, 1000, 1700\}$. In each balanced simulation we draw preferences for a total of 17,000 doctors and 17,000 hospitals (so 340 simulations at $N = 50$ and 10 simulations total at $N = 1700$). All simulation data and the code to generate and analyze it are available from the paper's ICPSR repository.

In addition to the balanced markets, we also analyzed the effects of (i) imbalanced markets; (ii) the effects of the interview capacities; (iii) and alternative procedure where only the doctor's common component was used to allocate interviews. Representative results from the simulations carried out are included in this appendix as follows:

Balanced The effects of N are illustrated for our balanced market in Figure B.2. In Figure B.4 we show how the difference market sizes are estimated with our logit model to allow for aggregation. In Figures B.7 and B.8 we outline the difference in outcomes for the minority of matched doctors for do not get the DA partner. More-detailed statistics for each separate market size are given in:

- $N = 50$: Table B.1
- $N = 100$: Table B.2
- $N = 200$: Table B.3
- $N = 500$: Table B.4
- $N = 1000$: Table B.5
- $N = 1700$: Table B.6

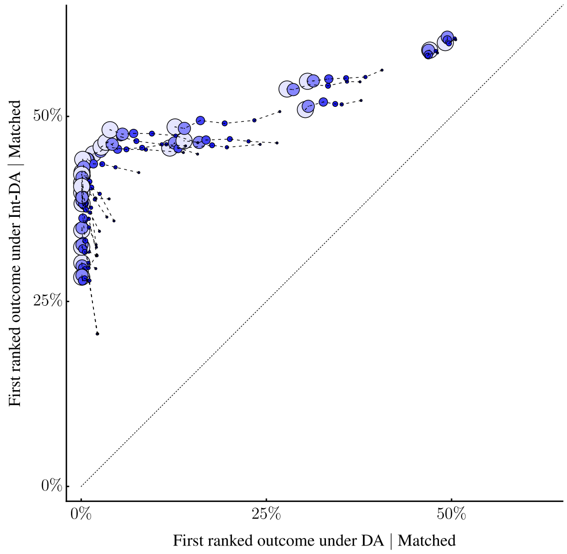
Imbalanced We examine the effects of market imbalance with $N_D = 600$ doctors being matched to $N_H = 500$ positions. Figure B.3 indicates the effects of imbalance relative to the balanced market at $N = 500$. In Table B.7 we present more-detailed statistics.

k-Effects For a balanced market with $N = 500$ we examine the effects of the interview capacities where we set $k = k'$. We consider $k \in 2, 5, 10, 20$, where we graph the effects in B.5. We present more-detailed statistics in:

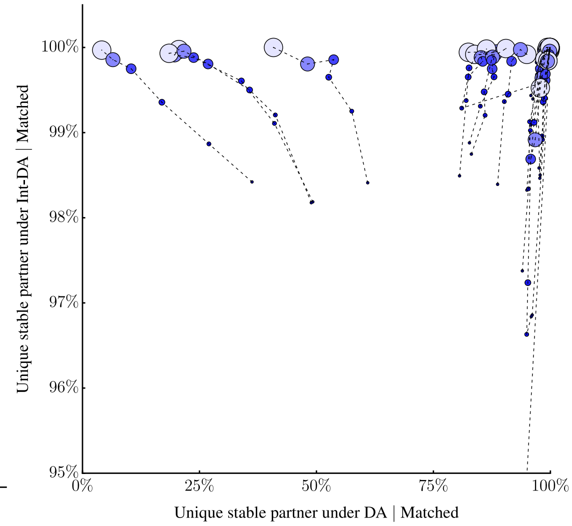
- $k = 2$: Table B.8
- $k = 10$ =: Table B.10
- $k = 20$: Table B.11

Information We consider an alternative interview selection procedure where we calculate the stable allocation with $k = k' = 5$ when hospitals do not realized the independent idiosyncratic component $\eta_{h,d}$ until after the interviews. As such, interviews are allocated using a much simpler procedure where doctors propose in turn according to their ranking by hospitals over the common component. Each doctor then proposes to their k favorite hospitals that have not yet filled their quota k'. Following this interview stage, the full preferences are then used on the interview-truncated list within DA.

Figure B.6 indicates the effect of this procedure over the full-information Int-DA procedure for first-ranked and unmatched rates.



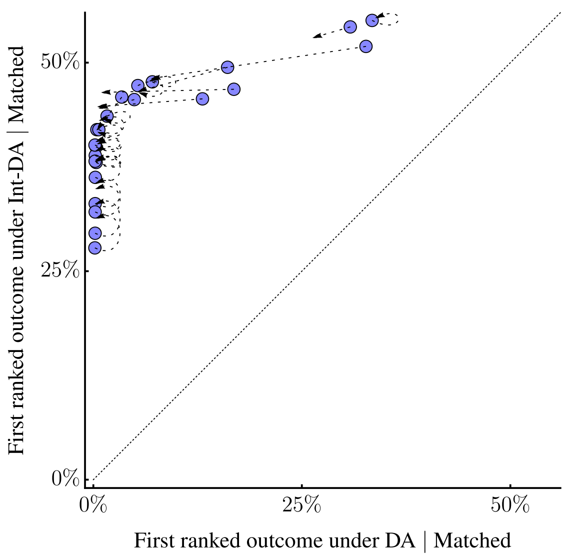
(a) First-ranked program



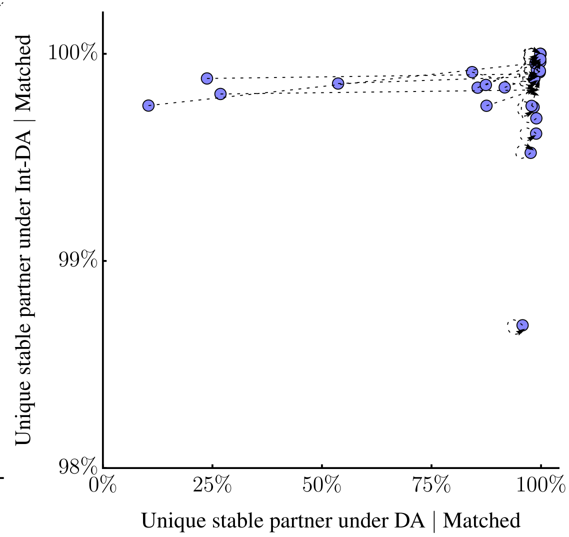
(b) Same partner | Match

Figure B.2: Effects from market size N on top-ranked proportion

Note: Lines show effects over N for balanced market simulations at $k = 5$ across the following market sizes $N \in \{50, 100, 200, 500, 1000, 1700\}$, where each chain indicates a parameter pair $(\lambda_D, \lambda_H) \in \{1/20, 1/4, 1/2, 3/4, 19/20\}^2$. Areas of each point proportional to market size.



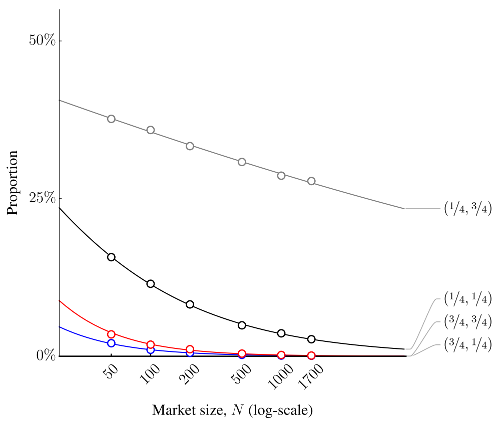
(a) First-ranked program



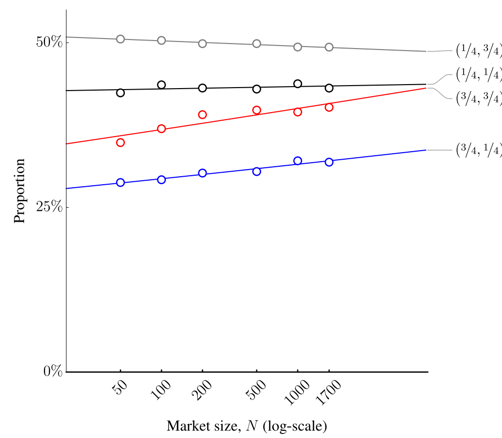
(b) Same partner | Match

Figure B.3: Imbalanced market effects for DA vs Int-DA

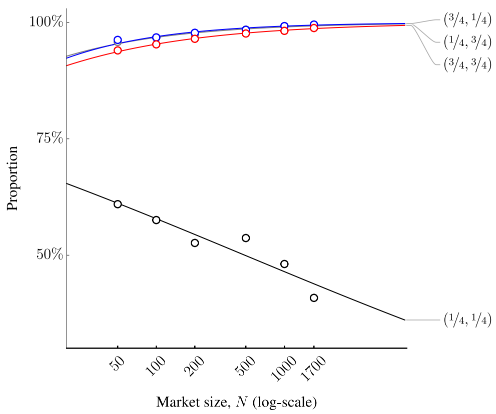
Note: Arrows show effect in moving from a balanced market with $N_D = N_H = 500$ market (blue point) to a market with $N_D = 600$, $N_H = 500$ doctors (20% excess) for all values $(\lambda_D, \lambda_H) \in \{1/20, 1/4, 1/2, 3/4, 19/20\}^2$. Horizontal axis shows the effect under DA, vertical under Int-DA.



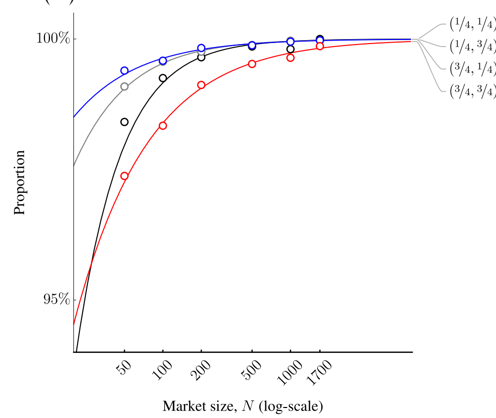
(a) First-ranked outcome under DA



(b) First-ranked outcome under Int-DA



(c) Unique stable partner under DA



(d) Unique stable partner under DA

Figure B.4: Fitted models in market size N for preference weights (λ_D, λ_H)

Note: Lines indicate the fitted models (a linear model for the log-odds ratio for the relevant variable against the $\log(N)$ on the right-hand side) while points indicate simulation data across 170,000 doctors at the relevant (λ_D, λ_H) preference pair. All simulations shown are for balanced markets with $k = k' = 5$

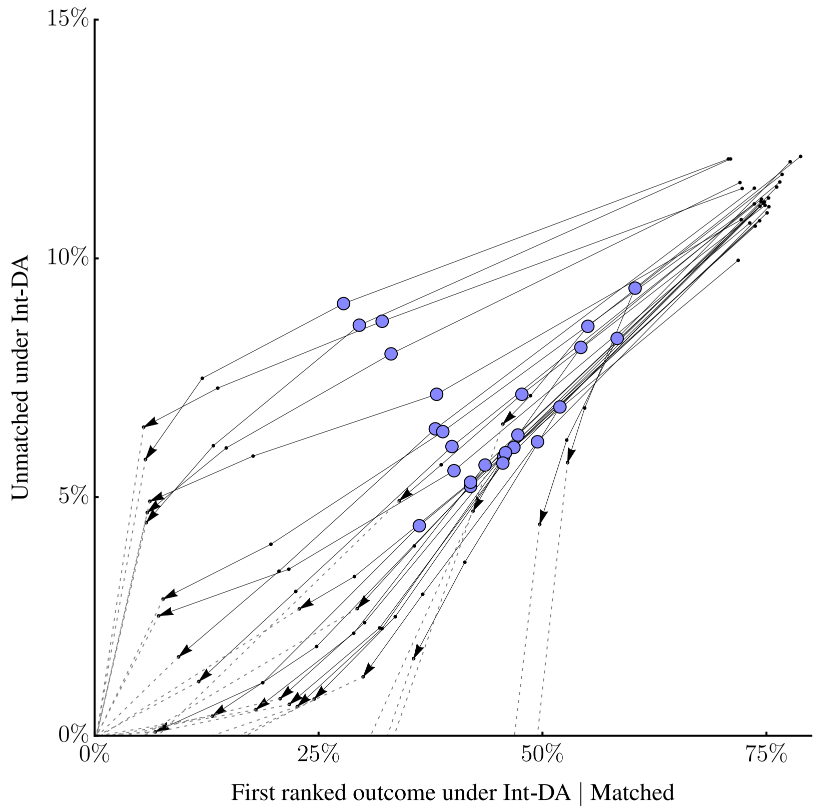
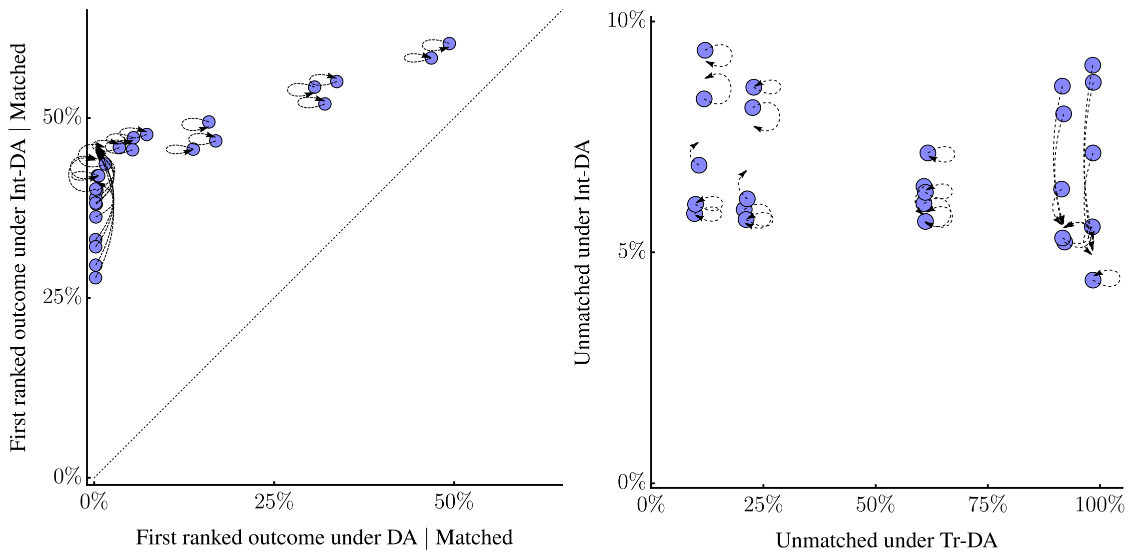


Figure B.5: Effects from the number of interview slots $k(=k')$ on top-rank and unmatched proportions

Note: Arrows show transitions for balanced market with $N = 500$ participants as we increase $k \in \{2, 5, 10, 20\}$. Each arrow shows simulations under preference parameters $(\lambda_D, \lambda_H) \in \{1/20, 1/4, 1/2, 3/4, 19/20\}^2$. Dotted lines show effect at $k \to \infty$ (the proportion under pure DA without interviews). Blue points show the locations under our core simulations at $k = 5$.



(a) First-ranked program

(b) Unmatched rates

Figure B.6: Alternative Interview Process: Full-Information vs. Doctor-Common–ranking

Note: Blue points indicate results from our standard interview-selection model. Curved arrows indicate the effect in the vertical direction from changing the interview selection procedure from Int-DA to Sim-Int-DA. In this alternative implementation, we assume that hospitals initial preferences are entirely driven by the common-value component (test scores, letters, etc.). At the interviews, the hospitals acquire information on the idiosyncratic component, subsequently ranking interviewed doctors using the full preference in DA. While this distinct algorithmic process allows for information to have a productive role in the interviews, it also substantially simplifies the computational burden of finding a stable interview matching. Hospitals' k interview slots are filled sequentially using doctors' preferences, acting in turn from the doctor with the highest common-rank, to the lowest.

Table B.1: Simulation Outcomes, $N = 50$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
	Unmatched [DA: 0.0%]					
Int-DA	5.6%	6.1%	7.6%	7.5%	5.9%	4.3%
Tr-DA	14.7%	38.9%	71.2%	16.7%	40.1%	71.7%
	First-ranked program					
DA	15.7%	3.8%	2.1%	37.6%	14.1%	3.5%
Int-DA	42.4%	36.5%	28.8%	50.6%	43.3%	34.8%
Tr-DA	30.9%	10.7%	2.4%	40.6%	16.5%	3.6%
	Top-three–ranked program					
DA	40.4%	12.4%	6.3%	64.4%	32.2%	10.3%
Int-DA	81.8%	78.3%	72.6%	82.8%	82.6%	81.1%
Tr-DA	67.9%	37.4%	10.9%	70.9%	41.2%	13.2%
Panel B: Core size, similarity to DA, and stability						
	Same partner under proposer change | *Matched*					
DA	61.0%	83.1%	96.3%	95.8%	95.5%	94.0%
Int-DA	98.4%	98.7%	99.4%	99.1%	98.7%	97.4%
	Identical partner to DA | *Matched*					
Int-DA	78.9%	85.0%	87.1%	86.9%	83.9%	86.7%
	Proportion blocking programs in Int-DA					
Matched	0.4%	0.6%	0.7%	0.6%	1.2%	1.2%
Unmatched	16.1%	14.2%	15.1%	17.8%	19.7%	33.3%

Table B.2: Simulation Outcomes, $N = 100$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched [DA: 0.0%]			
Int-DA	5.7%	6.3%	8.0%	8.0%	6.3%	4.7%
Tr-DA	16.8%	47.0%	80.6%	18.1%	47.2%	80.3%
			First-ranked program			
DA	11.5%	1.9%	1.0%	35.9%	10.9%	1.8%
Int-DA	43.6%	36.5%	29.2%	50.4%	43.3%	37.0%
Tr-DA	28.2%	8.7%	1.4%	39.1%	13.5%	2.2%
			Top-three–ranked program			
DA	31.3%	6.2%	3.1%	61.8%	25.7%	5.7%
Int-DA	82.1%	78.2%	73.0%	82.4%	81.9%	80.9%
Tr-DA	65.3%	31.5%	6.7%	68.8%	35.6%	8.5%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	57.5%	86.0%	96.8%	96.8%	95.5%	95.3%
Int-DA	99.3%	99.2%	99.6%	99.6%	99.1%	98.3%
			Identical partner to DA | Matched			
Int-DA	78.6%	83.6%	84.8%	84.9%	81.0%	84.4%
			Proportion blocking programs in Int-DA			
Matched	0.3%	0.7%	0.8%	0.4%	1.2%	1.4%
Unmatched	14.9%	12.4%	13.4%	17.9%	21.6%	34.7%

Table B.3: Simulation Outcomes, $N = 200$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched [DA: 0.0%]			
Int-DA	5.8%	6.4%	7.8%	7.9%	6.2%	5.1%
Tr-DA	19.0%	53.5%	86.2%	20.6%	53.7%	86.4%
			First-ranked program			
DA	8.2%	0.8%	0.5%	33.3%	7.5%	1.1%
Int-DA	43.1%	37.3%	30.2%	49.9%	43.8%	39.1%
Tr-DA	27.2%	6.9%	0.9%	37.3%	9.9%	1.4%
			Top-three–ranked program			
DA	23.1%	3.0%	1.5%	57.7%	19.3%	3.2%
Int-DA	81.6%	78.5%	73.7%	82.2%	82.2%	80.7%
Tr-DA	63.2%	26.9%	5.0%	66.2%	29.7%	5.6%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	52.6%	85.8%	97.8%	97.5%	97.4%	96.5%
Int-DA	99.7%	99.5%	99.8%	99.8%	99.6%	99.1%
			Identical partner to DA | Matched			
Int-DA	77.0%	82.9%	83.5%	84.3%	80.1%	82.8%
			Proportion blocking programs in Int-DA			
Matched	0.3%	0.7%	0.9%	0.3%	1.1%	1.6%
Unmatched	13.2%	10.9%	11.7%	18.6%	22.5%	36.1%

Table B.4: Simulation Outcomes, $N = 500$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched	[DA: 0.0%]		
Int-DA	5.7%	6.1%	8.0%	8.1%	6.3%	5.2%
Tr-DA	21.1%	60.8%	91.9%	22.6%	61.1%	92.1%
			First-ranked program			
DA	4.9%	0.3%	0.2%	30.8%	5.3%	0.4%
Int-DA	43.0%	37.5%	30.4%	49.9%	44.3%	39.8%
Tr-DA	25.6%	6.2%	0.4%	34.7%	7.8%	0.6%
			Top-three–ranked program			
DA	14.6%	1.2%	0.6%	55.3%	14.1%	1.2%
Int-DA	81.4%	79.0%	74.2%	82.1%	81.6%	80.9%
Tr-DA	60.1%	21.9%	2.5%	64.0%	24.3%	2.7%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	53.7%	87.4%	98.4%	98.5%	98.3%	97.6%
Int-DA	99.9%	99.8%	99.9%	99.9%	99.7%	99.5%
			Identical partner to DA | Matched			
Int-DA	76.0%	83.9%	82.4%	82.6%	78.3%	82.1%
			Proportion blocking programs in Int-DA			
Matched	0.2%	0.6%	0.9%	0.2%	0.9%	1.7%
Unmatched	11.2%	9.2%	10.2%	18.6%	23.2%	34.7%

Table B.5: Simulation Outcomes, $N = 1000$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched [DA: 0.0%]			
Int-DA	6.0%	6.4%	8.2%	8.0%	6.4%	5.1%
Tr-DA	22.6%	65.7%	93.9%	24.5%	64.9%	94.5%
			First-ranked program			
DA	3.6%	0.2%	0.1%	28.6%	4.2%	0.2%
Int-DA	43.8%	38.2%	32.1%	49.4%	43.3%	39.5%
Tr-DA	25.2%	4.8%	0.3%	33.3%	6.9%	0.3%
			Top-three–ranked program			
DA	11.0%	0.6%	0.3%	51.9%	11.1%	0.8%
Int-DA	81.7%	79.5%	74.3%	81.8%	81.7%	81.3%
Tr-DA	58.2%	18.7%	2.0%	62.1%	21.5%	2.0%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	48.1%	87.6%	99.2%	99.2%	98.8%	98.2%
Int-DA	99.8%	99.9%	99.9%	100.0%	100.0%	99.6%
			Identical partner to DA | Matched			
Int-DA	71.3%	82.2%	81.9%	81.9%	76.2%	82.2%
			Proportion blocking programs in Int-DA			
Matched	0.2%	0.6%	1.0%	0.1%	0.8%	1.6%
Unmatched	10.3%	8.6%	9.6%	18.9%	23.1%	34.0%

Table B.6: Simulation Outcomes, $N = 1700$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched [DA: 0.0%]			
Int-DA	6.0%	6.4%	7.9%	8.1%	6.5%	5.3%
Tr-DA	24.4%	68.6%	95.9%	25.1%	68.6%	95.9%
			First-ranked program			
DA	2.7%	0.2%	0.1%	27.8%	3.3%	0.1%
Int-DA	43.1%	38.6%	31.9%	49.3%	43.5%	40.2%
Tr-DA	22.9%	4.5%	0.2%	32.2%	5.7%	0.2%
			Top-three–ranked program			
DA	8.0%	0.3%	0.2%	50.7%	9.0%	0.5%
Int-DA	81.8%	79.3%	74.8%	81.9%	81.8%	81.2%
Tr-DA	56.8%	16.7%	1.3%	60.8%	19.1%	1.3%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	40.8%	90.5%	99.6%	99.2%	99.3%	98.8%
Int-DA	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%
			Identical partner to DA | Matched			
Int-DA	77.3%	83.5%	81.2%	81.3%	76.8%	82.7%
			Proportion blocking programs in Int-DA			
Matched	0.1%	0.6%	0.9%	0.1%	0.7%	1.6%
Unmatched	9.8%	7.8%	9.0%	18.9%	23.9%	33.8%

Table B.7: Simulations for Unbalanced Market, $N_D = 600$, $N_H = 500$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched	[DA: 16.7%]		
Int-DA	19.1%	19.2%	19.5%	22.5%	21.2%	20.2%
Tr-DA	29.7%	65.8%	92.8%	30.7%	65.6%	93.2%
			First-ranked program			
DA	0.5%	0.3%	0.2%	21.9%	4.5%	0.4%
Int-DA	36.0%	32.5%	28.6%	41.0%	36.6%	33.3%
Tr-DA	20.6%	4.9%	0.3%	29.3%	7.1%	0.5%
			Top-three–ranked program			
DA	1.7%	0.9%	0.5%	38.5%	11.1%	1.1%
Int-DA	70.3%	68.1%	65.5%	68.9%	68.5%	68.2%
Tr-DA	51.0%	18.6%	2.2%	55.7%	21.3%	2.5%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	99.7%	99.8%	99.9%	99.0%	98.4%	98.4%
Int-DA	99.9%	100.0%	100.0%	99.9%	99.7%	99.5%
			Identical partner to DA | Matched			
Int-DA	86.8%	86.4%	86.7%	84.7%	82.4%	82.1%
			Proportion blocking programs in Int-DA			
Matched	0.6%	0.5%	0.5%	0.4%	0.9%	1.3%
Unmatched	2.5%	2.7%	3.0%	7.6%	7.1%	8.2%

Table B.8: Simulation Outcomes, $k = k' = 2$

	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched [DA: 0.0%]			
Int-DA	11.3%	11.2%	11.6%	11.6%	11.2%	10.8%
Tr-DA	36.6%	74.5%	96.1%	37.4%	73.2%	95.0%
			First-ranked program			
DA	5.0%	0.4%	0.2%	30.6%	5.5%	0.5%
Int-DA	66.8%	66.1%	63.7%	67.6%	66.4%	66.2%
Tr-DA	38.3%	11.2%	1.0%	41.2%	13.4%	1.4%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	50.1%	84.8%	98.5%	98.5%	98.1%	97.2%
Int-DA	100.0%	100.0%	99.9%	100.0%	100.0%	100.0%
			Identical partner to DA | Matched			
Int-DA	73.8%	78.3%	80.7%	80.5%	77.1%	77.3%
			Proportion blocking programs in Int-DA			
Matched	0.4%	1.8%	3.0%	0.2%	1.3%	3.5%
Unmatched	18.1%	14.0%	13.6%	35.2%	39.2%	40.2%

Table B.9: Simulation Outcomes, $k = k' = 5$

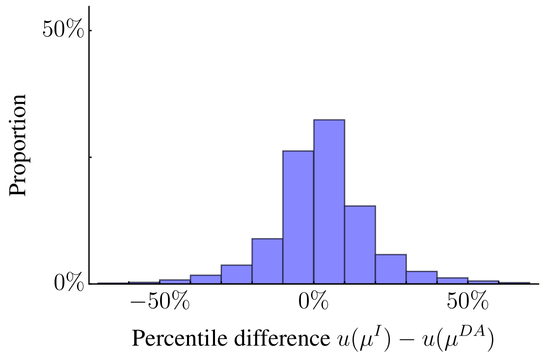
	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched [DA: 0.0%]			
Int-DA	5.7%	6.1%	8.0%	8.1%	6.3%	5.2%
Tr-DA	21.1%	60.8%	91.9%	22.6%	61.1%	92.1%
			First-ranked program			
DA	4.9%	0.3%	0.2%	30.8%	5.3%	0.4%
Int-DA	43.0%	37.5%	30.4%	49.9%	44.3%	39.8%
Tr-DA	25.6%	6.2%	0.4%	34.7%	7.8%	0.6%
			Top-three–ranked program			
DA	14.6%	1.2%	0.6%	55.3%	14.1%	1.2%
Int-DA	81.4%	79.0%	74.2%	82.1%	81.6%	80.9%
Tr-DA	60.1%	21.9%	2.5%	64.0%	24.3%	2.7%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	53.7%	87.4%	98.4%	98.5%	98.3%	97.6%
Int-DA	99.9%	99.8%	99.9%	99.9%	99.7%	99.5%
			Identical partner to DA | Matched			
Int-DA	76.0%	83.9%	82.4%	82.6%	78.3%	82.1%
			Proportion blocking programs in Int-DA			
Matched	0.2%	0.6%	0.9%	0.2%	0.9%	1.7%
Unmatched	11.2%	9.2%	10.2%	18.6%	23.2%	34.7%

Table B.10: Simulation Outcomes, $k = k' = 10$

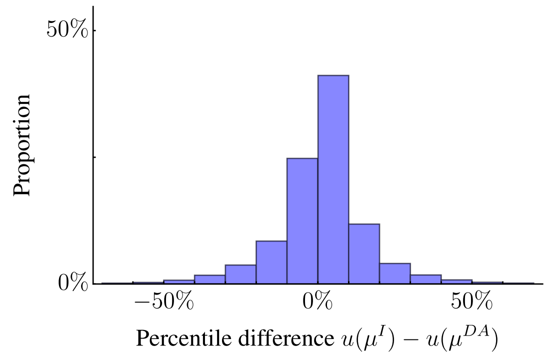
	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
			Unmatched [DA: 0.0%]			
Int-DA	2.3%	3.0%	6.0%	6.0%	4.0%	1.9%
Tr-DA	11.5%	48.8%	86.9%	13.9%	48.9%	87.5%
			First-ranked program			
DA	5.1%	0.3%	0.2%	30.3%	5.1%	0.4%
Int-DA	31.1%	21.8%	13.8%	43.4%	34.3%	24.3%
Tr-DA	18.1%	2.9%	0.2%	32.0%	6.1%	0.4%
			Top-three–ranked program			
DA	15.6%	1.2%	0.6%	54.4%	14.0%	1.3%
Int-DA	67.5%	57.1%	43.3%	74.3%	70.8%	61.9%
Tr-DA	46.7%	12.4%	1.0%	58.9%	18.2%	1.6%
Panel B: Core size, similarity to DA, and stability						
			Same partner under proposer change | Matched			
DA	46.1%	88.4%	98.5%	98.9%	98.1%	97.7%
Int-DA	99.3%	99.5%	99.9%	99.9%	99.5%	99.0%
			Identical partner to DA | Matched			
Int-DA	78.2%	85.0%	82.1%	81.1%	76.4%	88.6%
			Proportion blocking programs in Int-DA			
Matched	0.1%	0.2%	0.2%	0.2%	0.6%	0.5%
Unmatched	7.5%	6.6%	8.8%	9.5%	8.8%	28.9%

Table B.11: Simulation Outcomes, $k = k' = 20$

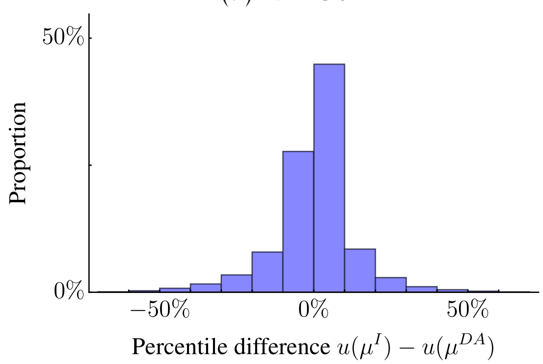
	$\lambda_H = 1/4$			$\lambda_H = 3/4$		
	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$	$\lambda_D = 1/4$	$\lambda_D = 1/2$	$\lambda_D = 3/4$
Panel A: Matching outcomes						
	Unmatched [DA: 0.0%]					
Int-DA	0.7%	1.1%	4.7%	4.7%	2.7%	0.4%
Tr-DA	5.6%	34.8%	79.5%	7.7%	36.5%	80.2%
	First-ranked program					
DA	4.7%	0.4%	0.2%	30.3%	5.3%	0.5%
Int-DA	21.6%	11.5%	5.6%	40.3%	28.5%	13.1%
Tr-DA	12.7%	1.7%	0.2%	30.8%	5.7%	0.5%
	Top-three–ranked program					
DA	14.1%	1.3%	0.6%	54.7%	13.7%	1.5%
Int-DA	51.6%	35.0%	19.1%	70.5%	63.5%	39.7%
Tr-DA	35.1%	7.0%	0.7%	56.2%	15.2%	1.5%
Panel B: Core size, similarity to DA, and stability						
	Same partner under proposer change | Matched					
DA	48.5%	86.5%	98.6%	98.5%	98.3%	97.2%
Int-DA	97.8%	98.7%	99.6%	99.5%	99.3%	97.9%
	Identical partner to DA | Matched					
Int-DA	75.2%	87.6%	80.8%	80.0%	78.8%	95.2%
	Proportion blocking programs in Int-DA					
Matched	0.0%	0.0%	0.0%	0.1%	0.4%	0.1%
Unmatched	4.1%	5.1%	7.7%	5.7%	3.6%	19.5%



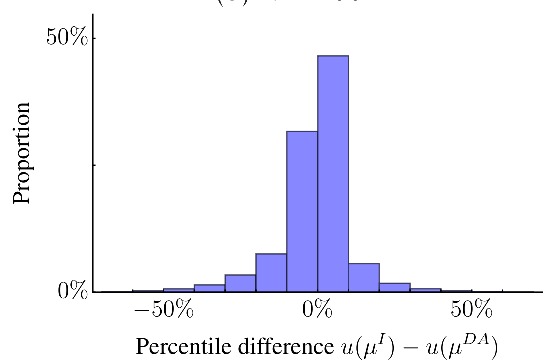
(a) $N = 50$



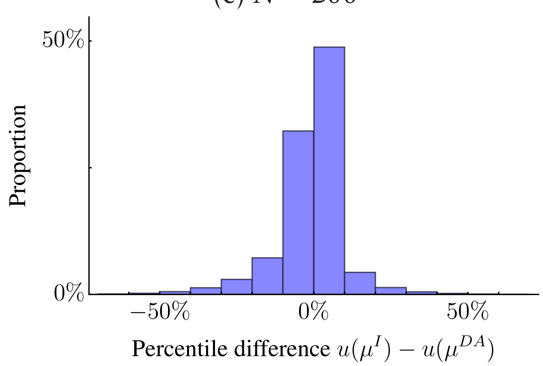
(b) $N = 100$



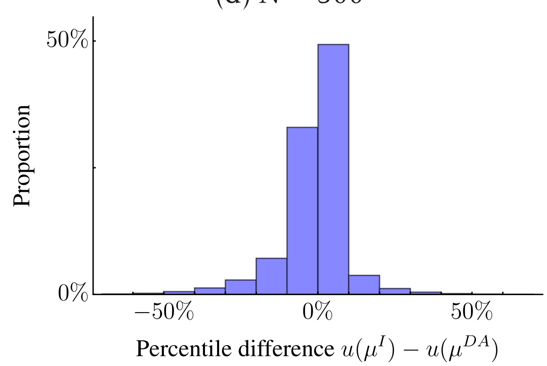
(c) $N = 200$



(d) $N = 500$



(e) $N = 1,000$



(f) $N = 1,700$

Figure B.7: N-effects on Difference in match outcomes between Int-DA and DA | Matched

Note: Sample pools across all preference parameters (λ_D, λ_H) pairs. Data conditional on both a match in Int-DA, and a distinct outcome from the DA partner.

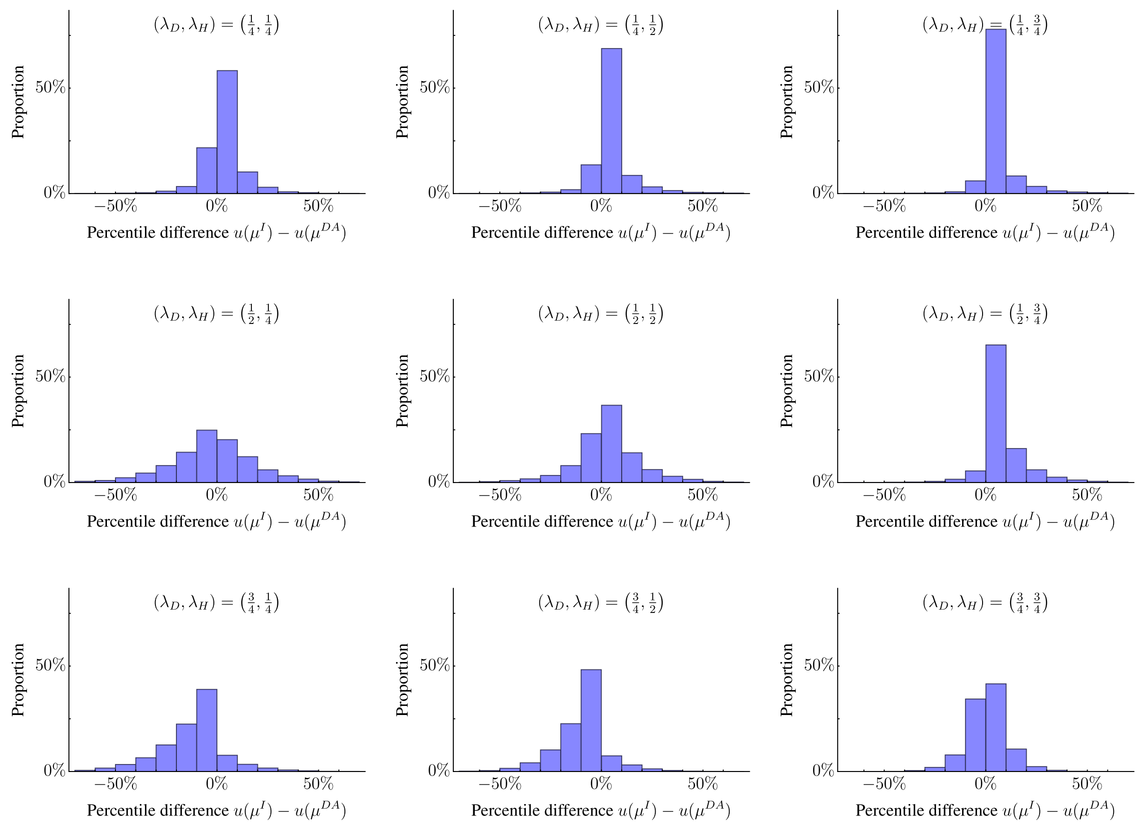


Figure B.8: λ-Effects on Difference in match outcomes between Int-DA and DA | Matched

Note: Sample pools all across simulation sizes N. Data conditional on both a match in Int-DA, and a distinct outcome from the DA partner.