Marriage Contests with Strategic Risk Taking

R. Vijay Krishna Dmitry Ryvkin

June 3, 2026

Motivation

- Parents invest in children to improve job *and* marriage prospects.

Motivation

- Parents invest in children to improve job *and* marriage prospects.
- These investments are inherently *risky*: which extracurriculars, which school, which major, which friends . . .

Motivation

- Parents invest in children to improve job *and* marriage prospects.
- These investments are inherently *risky*: which extracurriculars, which school, which major, which friends . . .
- Our question:

Motivation

- Parents invest in children to improve job *and* marriage prospects.
- These investments are inherently *risky*: which extracurriculars, which school, which major, which friends . . .
- Our question:

*How should parents choose between **risky** investments in their children?*

Motivation

- Parents invest in children to improve job *and* marriage prospects.
- These investments are inherently *risky*: which extracurriculars, which school, which major, which friends . . .
- Our question:

*How should parents choose between **risky** investments in their children?*

- Each parent wants an abler spouse for their child but does not internalise the effect on the *spouse*.

Motivation

- Parents invest in children to improve job *and* marriage prospects.
- These investments are inherently *risky*: which extracurriculars, which school, which major, which friends . . .
- Our question:

*How should parents choose between **risky** investments in their children?*

- Each parent wants an abler spouse for their child but does not internalise the effect on the *spouse*.
- This is the classic **holdup problem** $\Rightarrow$ inefficient investment.

Motivation

- Parents invest in children to improve job *and* marriage prospects.
- These investments are inherently *risky*: which extracurriculars, which school, which major, which friends . . .
- Our question:

*How should parents choose between **risky** investments in their children?*

- Each parent wants an abler spouse for their child but does not internalise the effect on the *spouse*.
- This is the classic **holdup problem** $\Rightarrow$ inefficient investment.
- Marriage here entails *no transfers*, so prices cannot restore efficiency.

Where the literature stands

- **Peters–Siow (2002):** with pre-match investment and no transfers, holdup inefficiency *vanishes* in large markets — but the result rests on rational expectations and admits a continuum of inefficient equilibria.

Where the literature stands

- **Peters–Siow (2002):** with pre-match investment and no transfers, holdup inefficiency *vanishes* in large markets — but the result rests on rational expectations and admits a continuum of inefficient equilibria.
- **Bhaskar–Hopkins (2016, BH):** resolve the indeterminacy with deterministic investment plus an *exogenous* quality shock (a two-sided Lazear–Rosen tournament). With heterogeneity across sides, investment is inefficient *even in a continuum* — generically overinvestment.

Where the literature stands

- **Peters–Siow (2002):** with pre-match investment and no transfers, holdup inefficiency *vanishes* in large markets — but the result rests on rational expectations and admits a continuum of inefficient equilibria.
- **Bhaskar–Hopkins (2016, BH):** resolve the indeterminacy with deterministic investment plus an *exogenous* quality shock (a two-sided Lazear–Rosen tournament). With heterogeneity across sides, investment is inefficient *even in a continuum* — generically overinvestment.
- **This paper:** investment is risky, and agents choose the *distribution* of the shock — strategic risk taking, building on Kim-Krishna-Ryvkin (2026).

What we show

- Endogenous risk taking turns assortative matching into a **contest**: order statistics of quality are the endogenous prize schedules.

What we show

- Endogenous risk taking turns assortative matching into a **contest**: order statistics of quality are the endogenous prize schedules.
- Finite markets: *underinvestment*. Large markets: convergence to the *socially efficient* allocation, even under asymmetric costs.

What we show

- Endogenous risk taking turns assortative matching into a **contest**: order statistics of quality are the endogenous prize schedules.
- Finite markets: *underinvestment*. Large markets: convergence to the *socially efficient* allocation, even under asymmetric costs.
- A bridge between Peters–Siow efficiency and BH inefficiency — and a foundation for *endogenous heterogeneity* within each side.

The model

- $n \geqslant 2$ agents per side: boys, girls.

The model

- $n \geqslant 2$ agents per side: boys, girls.
- Agent i chooses effort $x_i \geqslant 0$ *and* an output Y_i s.t.

$$\mathbf{E}[Y_i] = x_i, \qquad Y_i \geqslant 0 \text{ a.s.}$$

The model

- $n \geqslant 2$ agents per side: boys, girls.
- Agent i chooses effort $x_i \geqslant 0$ *and* an output Y_i s.t.

$$\mathbf{E}[Y_i] = x_i, \qquad Y_i \geqslant 0 \text{ a.s.}$$

- Assortative matching on output rank $r = 1, \ldots, n$.

The model

- $n \geqslant 2$ agents per side: boys, girls.
- Agent i chooses effort $x_i \geqslant 0$ *and* an output Y_i s.t.

$$\mathbf{E}[Y_i] = x_i, \qquad Y_i \geqslant 0 \text{ a.s.}$$

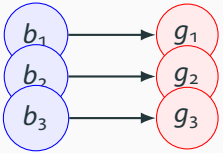
- Assortative matching on output rank $r = 1, \ldots, n$.

The model

- $n \geqslant 2$ agents per side: boys, girls.
- Agent i chooses effort $x_i \geqslant 0$ *and* an output Y_i s.t.

$$\mathbf{E}[Y_i] = x_i, \qquad Y_i \geqslant 0 \text{ a.s.}$$

- Assortative matching on output rank $r = 1, \ldots, n$.

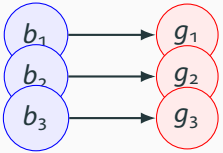


The model

- $n \geqslant 2$ agents per side: boys, girls.
- Agent i chooses effort $x_i \geqslant 0$ *and* an output Y_i s.t.

$$\mathbf{E}[Y_i] = x_i, \qquad Y_i \geqslant 0 \text{ a.s.}$$

- Assortative matching on output rank $r = 1, \ldots, n$.



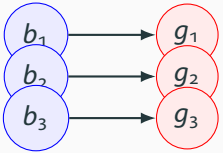
- Boy's payoff with partner output y_j: $y_j - c_b(x_i)$.

The model

- $n \geqslant 2$ agents per side: boys, girls.
- Agent i chooses effort $x_i \geqslant 0$ *and* an output Y_i s.t.

$$\mathbf{E}[Y_i] = x_i, \qquad Y_i \geqslant 0 \text{ a.s.}$$

- Assortative matching on output rank $r = 1, \ldots, n$.



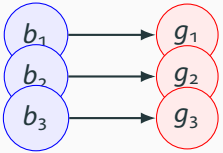
- Boy's payoff with partner output y_j: $y_j - c_b(x_i)$.
- Net costs: $c_b(0) = c_g(0) = 0$, strictly convex where increasing, with $c_b', c_g' > 1$ eventually.

The model

- $n \geqslant 2$ agents per side: boys, girls.
- Agent i chooses effort $x_i \geqslant 0$ *and* an output Y_i s.t.

$$\mathbf{E}[Y_i] = x_i, \qquad Y_i \geqslant 0 \text{ a.s.}$$

- Assortative matching on output rank $r = 1, \ldots, n$.



- Boy's payoff with partner output y_j: $y_j - c_b(x_i)$.
- Net costs: $c_b(0) = c_g(0) = 0$, strictly convex where increasing, with $c_b', c_g' > 1$ eventually.

Departure from BH

The *distribution* of the shock is **endogenous**

Socially efficient benchmark

Planner with welfare weight $\gamma \in (0, 1)$:

Socially efficient benchmark

Planner with welfare weight $\gamma \in (0,1)$:

$$\max_{(x_i,Y_i)} \gamma\big(\mathbf{E}[Y_g]-c_b(x_b)\big)+(1-\gamma)\big(\mathbf{E}[Y_g]-c_g(x_g)\big)$$

s.t. $x_i \geqslant 0$, $\mathbf{E}[Y_i] = x_i$, $Y_i \geqslant 0$.

Socially efficient benchmark

Planner with welfare weight $\gamma \in (0,1)$:

$$\max_{(x_i,Y_i)} \gamma\big(\mathbf{E}[Y_g]-c_b(x_b)\big)+(1-\gamma)\big(\mathbf{E}[Y_g]-c_g(x_g)\big)$$

s.t. $x_i \geqslant 0$, $\mathbf{E}[Y_i] = x_i$, $Y_i \geqslant 0$.

First-order conditions:

$$\gamma = (1-\gamma)c_g'(x_g)$$
$$1-\gamma = \gamma c_b'(x_b)$$

Socially efficient benchmark

Planner with welfare weight $\gamma \in (0,1)$:

$$\max_{(x_i,Y_i)} \gamma\big(\mathbf{E}[Y_g]-c_b(x_b)\big)+(1-\gamma)\big(\mathbf{E}[Y_g]-c_g(x_g)\big)$$

s.t. $x_i \geqslant 0$, $\mathbf{E}[Y_i] = x_i$, $Y_i \geqslant 0$.

First-order conditions:

$$\gamma = (1-\gamma)c_g'(x_g)$$
$$1-\gamma = \gamma c_b'(x_b)$$

Efficiency locus

$$c_b'(x_b)\, c_g'(x_g) = 1$$

Below the locus: *underinvestment*; above: *overinvestment*.

Equilibrium: endogenous prizes

- Semi-symmetric equilibrium: same-gender agents play the same (x_i, Y_i), $Y_i \sim G_i, i = g, b$

Equilibrium: endogenous prizes

- Semi-symmetric equilibrium: same-gender agents play the same (x_i, Y_i), $Y_i \sim G_i, i = g, b$
- Boys' **matching prizes** are expected order statistics of girls' output:

$$V_r = \int y \, \mathrm{d}G_g^{(r)}(y), \qquad U_r = \int y \, \mathrm{d}G_b^{(r)}(y) \quad \text{(for girls)}$$

Equilibrium: endogenous prizes

- Semi-symmetric equilibrium: same-gender agents play the same (x_i, Y_i), $Y_i \sim G_i$, $i = g, b$
- Boys' **matching prizes** are expected order statistics of girls' output:

$$V_r = \int y \, \mathrm{d}G_g^{(r)}(y), \qquad U_r = \int y \, \mathrm{d}G_b^{(r)}(y) \quad \text{(for girls)}$$

- A deviating boy choosing (x, G) earns

$$u_b(x, G) = \int \Phi\big(G_b(y); \mathbf{V}\big) \, \mathrm{d}G(y) - c_b(x), \quad \text{s.t.} \int y \, \mathrm{d}G(y) = x$$

with the expected benefit at quality quantile q

$$\Phi(q; \mathbf{V}) = \sum_{r=1}^{n} \binom{n-1}{r-1} q^{n-r} (1-q)^{r-1} V_r.$$

Equilibrium: optimality conditions

- Lagrangean (mean constraint, multiplier α_b) gives $c_b'(x_b^*) = \alpha_b$ and, on the support,

$$\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n.$$

Equilibrium: optimality conditions

- Lagrangean (mean constraint, multiplier α_b) gives $c_b'(x_b^*) = \alpha_b$ and, on the support,

$$\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n.$$

- Standard all-pay arguments: support $[0, \bar{y}_b]$, no atoms, $\bar{y}_b = (V_1 - V_n)/\alpha_b$.

Equilibrium: optimality conditions

- Lagrangean (mean constraint, multiplier α_b) gives $c_b'(x_b^*) = \alpha_b$ and, on the support,

$$\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n.$$

- Standard all-pay arguments: support $[0, \bar{y}_b]$, no atoms, $\bar{y}_b = (V_1 - V_n)/\alpha_b$.

Effort identities

$$\alpha_b x_b^* = x_g^* - V_n, \qquad \alpha_g x_g^* = x_b^* - U_n.$$

Equilibrium: optimality conditions

- Lagrangean (mean constraint, multiplier α_b) gives $c_b'(x_b^*) = \alpha_b$ and, on the support,

$$\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n.$$

- Standard all-pay arguments: support $[0, \bar{y}_b]$, no atoms, $\bar{y}_b = (V_1 - V_n)/\alpha_b$.

Effort identities

$$\alpha_b x_b^* = x_g^* - V_n, \qquad \alpha_g x_g^* = x_b^* - U_n.$$

- Each side runs an **all-pay contest over output**, with prize schedule set by the *other* side's order statistics.

Inefficiency, and the large-market limit

- Multiplying the effort identities:

$$c_b'(x_b^*)\, c_g'(x_g^*) = \alpha_b \alpha_g = \frac{x_b^* - U_n}{x_g^*} \cdot \frac{x_g^* - V_n}{x_b^*} < 1$$

$\Rightarrow$ aggregate **underinvestment** in finite markets.

Inefficiency, and the large-market limit

- Multiplying the effort identities:

$$c_b'(x_b^*)\, c_g'(x_g^*) = \alpha_b \alpha_g = \frac{x_b^* - U_n}{x_g^*} \cdot \frac{x_g^* - V_n}{x_b^*} < 1$$

  $\Rightarrow$ aggregate **underinvestment** in finite markets.

- Driver: the reservation prize V_n (lowest order statistic) is the *rent of the last-ranked agent* — a positive prize for any investment.

Inefficiency, and the large-market limit

- Multiplying the effort identities:

$$c_b'(x_b^*)\, c_g'(x_g^*) = \alpha_b \alpha_g = \frac{x_b^* - U_n}{x_g^*} \cdot \frac{x_g^* - V_n}{x_b^*} < 1$$

  $\Rightarrow$ aggregate **underinvestment** in finite markets.
- Driver: the reservation prize V_n (lowest order statistic) is the *rent of the last-ranked agent* — a positive prize for any investment.
- As $n \to \infty$, $U_n, V_n \to 0$, so $c_b' c_g' \to 1$: efficient, with weights

$$(\gamma, 1-\gamma) = \left(\frac{x_b^*}{x_b^* + x_g^*}, \frac{x_g^*}{x_b^* + x_g^*} \right)$$

Main characterization

Theorem (Unique equilibrium)
Set $\lambda = \dfrac{n-1}{n+1}$. *There is a unique equilibrium. Efforts solve*

$$\lambda x_b^* = c_g'(x_g^*)\, x_g^*, \qquad \lambda x_g^* = c_b'(x_b^*)\, x_b^*,$$

and output is uniform:

$$G_b(y) = \min\left\{ \tfrac{y}{2x_b^*}, 1 \right\}, \qquad G_g(y) = \min\left\{ \tfrac{y}{2x_g^*}, 1 \right\}.$$

Main characterization

Theorem (Unique equilibrium)
Set $\lambda = \dfrac{n-1}{n+1}$. *There is a unique equilibrium. Efforts solve*

$$\lambda x_b^* = c_g'(x_g^*)\, x_g^*, \qquad \lambda x_g^* = c_b'(x_b^*)\, x_b^*,$$

and output is uniform:

$$G_b(y) = \min\left\{ \tfrac{y}{2x_b^*}, 1 \right\}, \qquad G_g(y) = \min\left\{ \tfrac{y}{2x_g^*}, 1 \right\}.$$

Corollary
If $x_b^* > x_g^*$, *then* G_b *first-order stochastically dominates* G_g *and is more dispersed — and vice versa.*

Main characterization

Theorem (Unique equilibrium)

Set $\lambda = \dfrac{n-1}{n+1}$*. There is a unique equilibrium. Efforts solve*

$$\lambda x_b^* = c_g'(x_g^*)\, x_g^*, \qquad \lambda x_g^* = c_b'(x_b^*)\, x_b^*,$$

and output is uniform:

$$G_b(y) = \min\left\{ \tfrac{y}{2x_b^*}, 1 \right\}, \qquad G_g(y) = \min\left\{ \tfrac{y}{2x_g^*}, 1 \right\}.$$

Corollary

If $x_b^* > x_g^*$*, then* G_b *first-order stochastically dominates* G_g *and is more dispersed — and vice versa.*

The inefficiency wedge is exactly $\lambda^2 = \alpha_b \alpha_g = \left(\frac{n-1}{n+1}\right)^2 \to 1$.

Proof idea

- Integrate $\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n$ over the k-th order statistic:

$$\sum_r m_{kr} V_r = \alpha_b U_k + V_n, \quad m_{kr} = \Pr(\text{rank } r \mid \text{output} \sim k\text{-th order stat}).$$

Proof idea

- Integrate $\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n$ over the k-th order statistic:

$$\sum_r m_{kr} V_r = \alpha_b U_k + V_n, \quad m_{kr} = \Pr(\text{rank } r \mid \text{output} \sim k\text{-th order stat}).$$

- In matrix form (with J subtracting the reservation prize):

$$(M - J)\mathbf{V} = \alpha_b \mathbf{U}, \quad (M - J)\mathbf{U} = \alpha_g \mathbf{V} \Rightarrow (M - J)^2 \mathbf{U} = \alpha_b \alpha_g \mathbf{U}.$$

So $\mathbf{U}, \mathbf{V}$ are eigenvectors of $(M - J)^2$ for the *same* eigenvalue $\Rightarrow \mathbf{U} = s\mathbf{V}$.

Proof idea

- Integrate $\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n$ over the k-th order statistic:

$$\sum_r m_{kr} V_r = \alpha_b U_k + V_n, \quad m_{kr} = \Pr(\text{rank } r \mid \text{output} \sim k\text{-th order stat}).$$

- In matrix form (with J subtracting the reservation prize):

$$(M - J)\mathbf{V} = \alpha_b \mathbf{U}, \quad (M - J)\mathbf{U} = \alpha_g \mathbf{V} \Rightarrow (M - J)^2 \mathbf{U} = \alpha_b \alpha_g \mathbf{U}.$$

  So $\mathbf{U}, \mathbf{V}$ are eigenvectors of $(M - J)^2$ for the *same* eigenvalue $\Rightarrow \mathbf{U} = s\mathbf{V}$.
- Pass to prize *differences* $\mathbf{v} = D^{-1}\mathbf{V}$; the reduced block is strictly positive. **Perron–Frobenius**: the only feasible, nontrivial prize eigenvector is $(n, n-1, \ldots, 1)$, with simple eigenvalue $\lambda^2 = \left(\frac{n-1}{n+1}\right)^2$.

Proof idea

- Integrate $\Phi(G_b(y); \mathbf{V}) = \alpha_b y + V_n$ over the k-th order statistic:

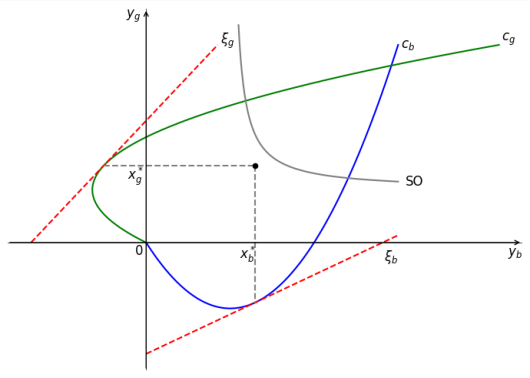
$$\sum_r m_{kr} V_r = \alpha_b U_k + V_n, \quad m_{kr} = \Pr(\text{rank } r \mid \text{output} \sim k\text{-th order stat}).$$

- In matrix form (with J subtracting the reservation prize):

$$(M - J)\mathbf{V} = \alpha_b \mathbf{U}, \quad (M - J)\mathbf{U} = \alpha_g \mathbf{V} \Rightarrow (M - J)^2 \mathbf{U} = \alpha_b \alpha_g \mathbf{U}.$$

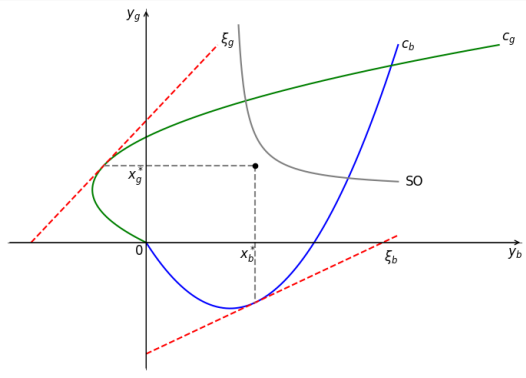
  So $\mathbf{U}, \mathbf{V}$ are eigenvectors of $(M - J)^2$ for the *same* eigenvalue $\Rightarrow \mathbf{U} = s\mathbf{V}$.
- Pass to prize *differences* $\mathbf{v} = D^{-1}\mathbf{V}$; the reduced block is strictly positive. **Perron–Frobenius**: the only feasible, nontrivial prize eigenvector is $(n, n-1, \ldots, 1)$, with simple eigenvalue $\lambda^2 = \left(\frac{n-1}{n+1}\right)^2$.
- Equispaced prizes $\Rightarrow \Phi(q)$ *linear* $\Rightarrow$ uniform output; the effort system then has a unique solution.

Illustration of the equilibrium

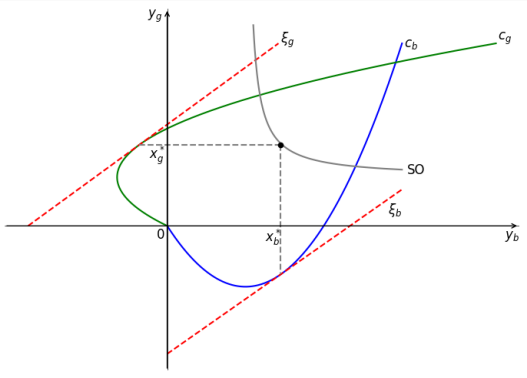


$n = 5$: underinvestment, $\lambda^2 \approx 0.444$

Illustration of the equilibrium

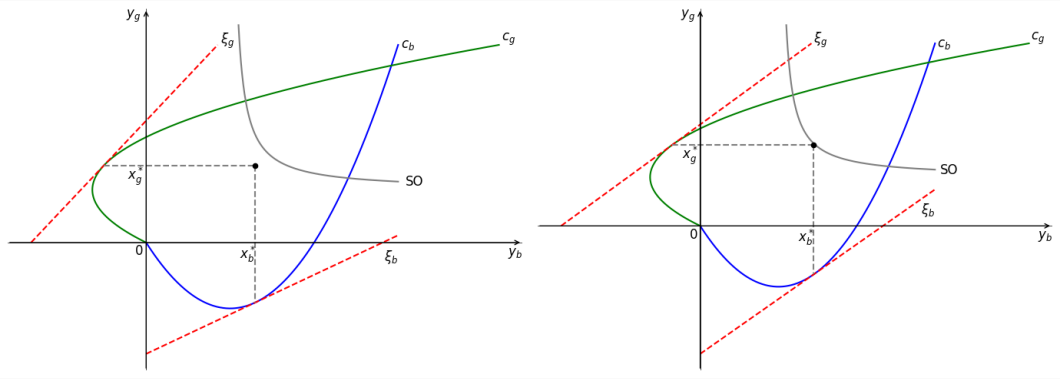


$n = 5$: underinvestment, $\lambda^2 \approx 0.444$



$n = 100$: near-efficient, $\lambda^2 \approx 0.961$

Illustration of the equilibrium



$n = 5$: underinvestment, $\lambda^2 \approx 0.444$

$n = 100$: near-efficient, $\lambda^2 \approx 0.961$

Dashed: virtual cost functions ξ_b, ξ_g (shadow cost of the mean constraint). Gray: locus of socially optimal profiles. Here $c_b(x) = x(x-2)$, $c_g(x) = x(x-1.6)$.

Example: quadratic costs

Let $c_b(x) = \frac{x^2}{2}$, $c_g(x) = \frac{tx^2}{2}$. The effort system

Example: quadratic costs

Let $c_b(x) = \frac{x^2}{2}$, $c_g(x) = \frac{tx^2}{2}$. The effort system

$$\lambda x_b = t x_g^2, \qquad \lambda x_g = x_b^2$$

gives

Example: quadratic costs

Let $c_b(x) = \frac{x^2}{2}$, $c_g(x) = \frac{tx^2}{2}$. The effort system

$$\lambda x_b = t x_g^2, \qquad \lambda x_g = x_b^2$$

gives

$$x_b^* = \lambda t^{-1/3},\ x_g^* = \lambda t^{-2/3},\ s = \frac{x_b^*}{x_g^*} = t^{1/3}$$

Example: quadratic costs

Let $c_b(x) = \frac{x^2}{2}$, $c_g(x) = \frac{tx^2}{2}$. The effort system

$$\lambda x_b = t x_g^2, \qquad \lambda x_g = x_b^2$$

gives

$$x_b^* = \lambda t^{-1/3},\ x_g^* = \lambda t^{-2/3},\ s = \frac{x_b^*}{x_g^*} = t^{1/3}$$

Uniform output:

$$G_b(y) = \min\left\{\frac{t^{1/3}y}{2\lambda}, 1\right\},\ G_g(y) = \min\left\{\frac{t^{2/3}y}{2\lambda}, 1\right\}.$$

Example: quadratic costs

Let $c_b(x) = \frac{x^2}{2}$, $c_g(x) = \frac{tx^2}{2}$. The effort system

$$\lambda x_b = t x_g^2, \qquad \lambda x_g = x_b^2$$

gives

$$x_b^* = \lambda t^{-1/3},\ x_g^* = \lambda t^{-2/3},\ s = \frac{x_b^*}{x_g^*} = t^{1/3}$$

Uniform output:

$$G_b(y) = \min\left\{\frac{t^{1/3}y}{2\lambda}, 1\right\},\ G_g(y) = \min\left\{\frac{t^{2/3}y}{2\lambda}, 1\right\}.$$

$t > 1$: G_b FOSD G_g; $\quad t < 1$: the reverse.

Extension: unequal populations

- Let the two sides have different sizes, for example $n_b > n_g$
- Then $n_b - n_g$ boys remain unmatched, so the boys' prize vector has zeros at the bottom:

$$\mathbf{V} = (\mathbf{V}^g, 0, \ldots, 0)$$

Unequal populations

- $n_b > n_g$, so $\mathbf{V} = (\mathbf{V}^g, 0, \ldots, 0)$

Unequal populations

- $n_b > n_g$, so $\mathbf{V} = (\mathbf{V}^g, 0, \ldots, 0)$
- The problem reduces to a coupled eigenvalue system for the matched prizes:

$$(M^g - J^g)\, M^b_{[g]} \mathbf{V}^g = \alpha_b \alpha_g \mathbf{V}^g$$

Unequal populations

- $n_b > n_g$, so $\mathbf{V} = (\mathbf{V}^g, \mathrm{o}, \ldots, \mathrm{o})$
- The problem reduces to a coupled eigenvalue system for the matched prizes:

$$\left(M^g - J^g\right) M^b_{[g]} \mathbf{V}^g = \alpha_b \alpha_g \mathbf{V}^g$$

- The relevant product matrix is strictly positive $\Rightarrow$ *Perron–Frobenius* again gives a unique positive simple eigenvalue and a feasible prize schedule

Unequal populations

- $n_b > n_g$, so $\mathbf{V} = (\mathbf{V}^g, \mathrm{o}, \ldots, \mathrm{o})$
- The problem reduces to a coupled eigenvalue system for the matched prizes:

$$\left(M^g - J^g\right) M^b_{[g]} \mathbf{V}^g = \alpha_b \alpha_g \mathbf{V}^g$$

- The relevant product matrix is strictly positive $\Rightarrow$ *Perron–Frobenius* again gives a unique positive simple eigenvalue and a feasible prize schedule
- Now equilibrium prizes are not equispaced

Unequal populations

- $n_b > n_g$, so $\mathbf{V} = (\mathbf{V}^g, \mathrm{o}, \ldots, \mathrm{o})$
- The problem reduces to a coupled eigenvalue system for the matched prizes:

$$(M^g - J^g)\, M^b_{[g]} \mathbf{V}^g = \alpha_b \alpha_g \mathbf{V}^g$$

- The relevant product matrix is strictly positive $\Rightarrow$ *Perron–Frobenius* again gives a unique positive simple eigenvalue and a feasible prize schedule
- Now equilibrium prizes are not equispaced
- **Open Question:**. Efficiency as function of asymptotic population ratio $R(n)$ as $n \to \infty$

Takeaways

- Endogenous risk taking makes assortative matching a **contest** with prizes given by order statistics of quality.

Takeaways

- Endogenous risk taking makes assortative matching a **contest** with prizes given by order statistics of quality.
- Unique equilibrium: **equispaced prizes**, **uniform** quality on both sides.

Takeaways

- Endogenous risk taking makes assortative matching a **contest** with prizes given by order statistics of quality.
- Unique equilibrium: **equispaced prizes**, **uniform** quality on both sides.
- Finite-market underinvestment is driven entirely by the *last-ranked agent's rent*; it vanishes as $n \to \infty$.

Takeaways

- Endogenous risk taking makes assortative matching a **contest** with prizes given by order statistics of quality.
- Unique equilibrium: **equispaced prizes**, **uniform** quality on both sides.
- Finite-market underinvestment is driven entirely by the *last-ranked agent's rent*; it vanishes as $n \to \infty$.
- A bridge between Peters–Siow efficiency and Bhaskar–Hopkins inefficiency — and a source of *endogenous heterogeneity* within each side.