The Morale Effects of Pay Inequality (Breza, Kaur, and Shamdasani)

R Replication Code for Table V and Table A.II by Yuen Ho

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Table 4: Panel A

| | Output | Attendance | Output | Attendance | Output Att |
|--------------------------|------------------------|--------------------------|-----------------------|------------------------|----------------|
| | (1) | (2) | (3) | (4) | (5) |
| posttreat | -0.311^{***} (0.110) | -0.115^{***} (0.026) | -0.242^{**} (0.099) | -0.117^{***} (0.026) | -0.089 (0.094) |
| Individual Fixed effects | No | No | Yes | Yes | No |
| N | $8,\!375$ | $8,\!375$ | 8,375 | $8,\!375$ | 7.678 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 4: Panel B

| | Output | Attendance | Output | Attendance | Output Att |
|--------------------------|-----------|------------|----------|----------------|---------------|
| | (1) | (2) | (3) | (4) | (5) |
| treatlowpost | -0.385*** | -0.113** | -0.332** | -0.120** | -0.204* |
| | (0.134) | (0.055) | (0.131) | (0.054) | (0.114) |
| treatmedpost | -0.262 | -0.126** | -0.226 | -0.129** | -0.061 |
| | (0.201) | (0.056) | (0.191) | (0.061) | (0.138) |
| treathighpost | -0.288 | -0.106** | -0.172 | -0.104* | -0.009 |
| - | (0.199) | (0.053) | (0.186) | (0.054) | (0.152) |
| Individual Fixed effects | No | No | Yes | Yes | No |
| N | 8,375 | 8,375 | 8,375 | 8,375 | 7.678 |
| Note: | | | | *p<0.1; **p<0. | 05; ***p<0.01 |

The post treatment compressed mean for output is -0.099 standard deviations; for attendance is 0.939 standard deviations; and for output conditional on attendance is 0.015 standard deviations.

Note that the above code does not exactly replicate the clustered standard errors in the fixed effects models reported in the paper and in the original replication code provided in Stata. However, the clustered standard errors produced by this replication code are qualitatively comparable and are identical up to 2 decimal places.

Table A2: Panel A

| | Output (1) | Attendance (2) | Output (3) | Attendance (4) | Output (5) | Attendance (6) | Output (7) | Attendance (8) |
|----------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|
| posttreat | -0.222^{***} (0.072) | -0.096^{***} (0.020) | -0.272^{***} (0.089) | -0.124^{***} (0.023) | -0.242^{**} (0.099) | -0.117^{***} (0.026) | -0.272^{**} (0.111) | -0.115^{***} (0.028) |
| Sample | Relevant | Relevant | Relevant | Relevant | Full | Full | Full | Full |
| Pre-trmt obs | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| Neighbor ctrls | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Individual FEs | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| N | 4,307 | 4,307 | 4,307 | 4,307 | 8,375 | 8.375 | 5,283 | 5,283 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Table A2: Panel B

| | Output (1) | Attendance (2) | Output (3) | Attendance (4) | Output (5) | Attendance (6) | Output (7) | Attendance (8) |
|----------------|-----------------------|------------------|------------------------|-----------------------|-----------------------|-------------------------|-------------------------|----------------------|
| | | | | | | | . , | |
| treatlowpost | -0.279^{**} (0.113) | -0.100** (0.044) | -0.400^{***} (0.123) | -0.115^{**} (0.050) | -0.332^{**} (0.131) | -0.120^{**} (0.054) | -0.292^{**} (0.134) | -0.099^* (0.054) |
| treatmedpost | -0.180 | -0.099** | -0.278 | -0.148** | -0.226 | -0.129** | -0.291 | -0.146** |
| • | (0.131) | (0.046) | (0.199) | (0.067) | (0.191) | (0.061) | (0.198) | (0.062) |
| treathighpost | -0.205 | -0.088** | -0.145 | -0.111** | -0.172 | -0.104* | -0.238 | -0.103** |
| | (0.144) | (0.038) | (0.178) | (0.053) | (0.186) | (0.054) | (0.202) | (0.052) |
| Sample | Relevant | Relevant | Relevant | Relevant | Full | Full | Full | Full |
| Pre-trmt obs | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| Neighbor ctrls | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Individual FEs | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| N | 4,307 | 4,307 | 4,307 | 4,307 | 8,375 | 8.375 | 5,283 | 5,283 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Also note that the original replication code provided in Stata contained a minor error that caused the code to not replicate columns (7) and (8) in Table A.II. Specifically, the Globals "neighbor_pre_noT" and "neighbor_pre" were not defined in the original replication code but were supposed to be included in the specifications for (7) and (8). This replication code corrects this error and successfully replicates the original results reported Table A.II Columns (7) and (8) in the published Appendix.

Table 4 Panel A Robustness Check: Include experience cubed controls

| | Output (1) | Output (2) | Attendance (3) | Attendance (4) | Output Att (5) | Output Att (6) |
|--------------------------|------------------------|------------------------|--------------------------|--------------------------|------------------|----------------|
| posttreat | -0.311^{***} (0.110) | -0.310^{***} (0.110) | -0.115^{***} (0.026) | -0.114^{***} (0.025) | -0.089 (0.094) | -0.088 (0.093) |
| Exper Cubed Controls | No | Yes | No | Yes | No | Yes |
| Individual Fixed effects | No | No | Yes | Yes | No | No |
| N | 8,375 | 8,375 | $8,\!375$ | $8,\!375$ | 7,678 | 7,678 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 4 Panel B Robustness Check: Include experience cubed controls

| | Output (1) | Output (2) | Attendance (3) | Attendance (4) | Output Att (5) | Output Att (6) |
|---|--------------------------|--------------------------|-------------------------|-------------------------|--------------------|--------------------|
| treatlowpost | -0.385^{***} (0.134) | -0.387^{***} (0.134) | -0.113^{**} (0.055) | -0.112^{**} (0.053) | -0.204^* (0.114) | -0.207^* (0.112) |
| treatmedpost | -0.262 (0.201) | -0.255 (0.202) | -0.126^{**} (0.056) | -0.121^{**} (0.056) | -0.061 (0.138) | -0.055 (0.138) |
| treathighpost | -0.288 (0.199) | -0.288 (0.199) | -0.106^{**} (0.053) | -0.107^{**} (0.052) | -0.009 (0.152) | -0.007 (0.151) |
| Exper Cubed Controls Individual Fixed effects N | No No 8,375 | Yes No 8,375 | No Yes 8,375 | Yes Yes 8,375 | No No 7,678 | Yes No 7,678 |

Note:

*p<0.1; **p<0.05; ***p<0.01

As a robustness check, I test the sensitivity of the main results on the effects of pay disparity to functional form assumptions. In the original specification, the authors include controls with both experience and the square of experience to allow for task-specific non-linearities in returns to experience. However, the choice to include only experience and experience squared terms, rather than higher order terms, is arbitrary and imposes implicit functional form assumptions. I test the sensitivity of the original results to functional form assumptions by re-analyzing Table IV including controls with experience cubed interacted with task dummies. Note that this change is only relevant for the specifications that do not include individual fixed effects.

The results from this variation are very similar to the original results, suggesting that the original results are not driven by functional form assumptions.