# Product Proliferation under Rational Inattention: 

## Application to Health Insurance

## ONLINE APPENDIX

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Figure A-1
Predicted Price and Profit by Number of Products


Notes: Chart uses the model presented in Section 2.2 to show simulated price and profit of firm A as a function of its number of duplicate products $\left(N_{A}\right)$ when $\lambda$ is fixed at 1 and $N_{B}$ at 1 . Marginal cost is set to 1 .

Figure A-2
Similar Plans by Year


Notes: Chart shows average number of very similar or duplicate plans in individuals' choice sets for 2010 to 2015 .

Figure A-3
Relationship between Similar/Duplicate Plans and Premiums


Notes: Similar/duplicate plans offered by an insurer defined as those with the same or very similar characteristics. Insurers with over 3 similar plans ( $2.9 \%$ of observations) not shown.

Figure A-4
Relationship between Similar/Duplicate Plans and Out-of-Pocket Cost Similarity Measure based on Plan Cost


Notes: Similar/duplicate plans offered by an insurer defined as those in which the total cost in the same ventile. Insurers with over 3 similar plans ( $2.9 \%$ of observations) not shown.

Table A-1
Relationship between Similar/Duplicate Plans and Out-of-Pocket Cost Similarity Measure based on Plan Cost

|  | (1) | (2) | (3) | (4) | (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Similar plans have cost in same ventile |  |  |  |  |  |
| Number similar plans | $\begin{aligned} & \hline 30.1^{* *} \\ & (13.2) \end{aligned}$ | $\begin{aligned} & \hline 35.7^{* * *} \\ & (12.5) \end{aligned}$ | $\begin{aligned} & \hline 34.5^{* * *} \\ & (11.4) \end{aligned}$ | $\begin{aligned} & \hline 33.7^{* * *} \\ & (11.0) \end{aligned}$ | $\begin{aligned} & 32.0^{* * *} \\ & (9.9) \end{aligned}$ |
| Plan risk |  |  | $\begin{gathered} -0.47^{* * *} \\ (0.00) \end{gathered}$ |  | $\begin{gathered} -0.47^{* * *} \\ (0.00) \end{gathered}$ |
| Plan quality |  |  | $\begin{gathered} -18.73 \\ (15.07) \end{gathered}$ |  | $\begin{gathered} -13.08 \\ (18.47) \end{gathered}$ |
| Adjusted R2 | 0.008 | 0.096 | 0.649 | 0.129 | 0.664 |
| Observations | 1,866 | 1,858 | 1,855 | 1,858 | 1,855 |
| Similar plans have cost in same percentile |  |  |  |  |  |
| Number similar plans | $\begin{gathered} 93.5^{* *} \\ (35.5) \end{gathered}$ | $\begin{aligned} & 104.2^{* * *} \\ & (31.6) \end{aligned}$ | $\begin{aligned} & 101.9^{* * *} \\ & (29.7) \end{aligned}$ | $\begin{aligned} & 98.2^{* * *} \\ & (26.5) \end{aligned}$ | $\begin{aligned} & \hline 95.3^{* * *} \\ & (24.8) \end{aligned}$ |
| Plan risk |  |  | $\begin{gathered} -0.47^{* * *} \\ (0.00) \end{gathered}$ |  | $\begin{aligned} & -0.47^{* * *} \\ & (0.00) \end{aligned}$ |
| Plan quality |  |  | $\begin{gathered} -19.10 \\ (15.18) \end{gathered}$ |  | $\begin{gathered} -13.87 \\ (18.65) \end{gathered}$ |
| Insurer FEs | No | Yes | Yes | Yes | Yes |
| Year FEs | No | No | No | Yes | Yes |
| Adjusted R2 | 0.010 | 0.097 | 0.650 | 0.130 | 0.665 |
| Observations | 1,866 | 1,858 | 1,855 | 1,858 | 1,855 |

Notes: Estimates from OLS regression where dependent variable is the number of plans offered by an insurer that have a total cost in the same ventile or percentile. Standard errors clustered at the insurer level in parentheses. * $p<0.10,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$.

