This appendix sets up a discrete version of the model where both WTP for quality and WTP for status utility are independently distributed. This model is briefly discussed towards the end of section 6 (footnote 18) in body of the paper.

Let \( \nu^i \) reflect WTP for quality, distributed by pmf \( f_\nu (0) = f_\nu (1) = \frac{1}{2} \). Individuals, unlike the baseline scenario, also vary in their valuation of social status, where this preference is formally denoted as \( w^i \in \{ \frac{1}{2}, \frac{1}{2} \} \). \( w^i \) is distributed by pmf \( f_w (w) = f_w (\frac{1}{2}) = \frac{1}{2} \) and is independent of \( \nu^i \), implying that \( f_{\nu,w} (\nu^i, w^i) = \frac{1}{4} \) \( \forall \{ \nu^i, w^i \} \in \{ \{0, 1\} \times \{\frac{1}{2}, \frac{1}{2}\} \} \).

To fully characterize each consumer’s purchase timing problem, we first denote each \( \{\nu^i, w^i\} \) pair type: \( \{\nu^1, w^1\} = \{0, \frac{1}{2}\} \), \( \{\nu^2, w^2\} = \{0, \frac{1}{2}\} \), \( \{\nu^3, w^3\} = \{1, \frac{1}{2}\} \), and \( \{\nu^4, w^4\} = \{1, \frac{1}{2}\} \). Here, each consumer \( i = 1, \ldots, 4 \) optimizes the following:

\[
\begin{align*}
(1a) & \quad \max_{x_1^i, x_2^i} x_1^i [U(\nu^i, w^i, 1)] + x_2^i [U(\nu^i, w^i, 2)] + (1 - x_1^i - x_2^i) [U(\nu^i, w^i, N)] \\
(1b) & \quad \text{s.t. } x_1^i + x_2^i \leq 1
\end{align*}
\]

where

\[
\begin{align*}
(2a) & \quad U(\nu^i, w^i, 1) = \nu^i + (1 - \delta) \lambda w^i \left( \frac{\nu^i + \sum_{j \in C_{1}^{-i}} \nu^j}{1 + \sum_{j \in C_{1}^{-i}} 1} \right) + \delta \lambda w^i \left( \frac{\nu^i + \sum_{j \in C_{2}^{-i}} \nu^j}{1 + \sum_{j \in C_{2}^{-i}} 1} \right) - P_1 \\
(2b) & \quad U(\nu^i, w^i, 2) = \delta \nu^i + (1 - \delta) \lambda w^i \left( \frac{\nu^i + \sum_{j \in C_{1}^{-i}} \nu^j}{1 + \sum_{j \in C_{1}^{-i}} 1} \right) + \delta \lambda w^i \left( \frac{\nu^i + \sum_{j \in C_{2}^{-i}} \nu^j}{1 + \sum_{j \in C_{2}^{-i}} 1} \right) - P_2 \\
(2c) & \quad U(\nu^i, w^i, N) = (1 - \delta) \lambda w^i \left( \frac{\nu^i + \sum_{j \in C_{1}^{-i}} \nu^j}{1 + \sum_{j \in C_{1}^{-i}} 1} \right) + \delta \lambda w^i \left( \frac{\nu^i + \sum_{j \in C_{2}^{-i}} \nu^j}{1 + \sum_{j \in C_{2}^{-i}} 1} \right)
\end{align*}
\]
and

\[(3a) \quad C_{k}^{-i} = \{ j \neq i : x_{t}^{j} = 1 \text{ for some } t \leq k \} \]

\[(3b) \quad C_{-k}^{-i} = \{ j \neq i : x_{t}^{j} = 0 \text{ for all } t \leq k \} \]

The producer optimally responds to the above preferences with price-skimming sequence \( \{P_{1}^{*}, P_{2}^{*} (P_{1}^{*})\} \):

\[(4a) \quad \max_{P_{1}} \left( P_{1} - \frac{k}{2}Q^{2} \right) \sum_{i=1}^{4} x_{1}^{i} + \delta \left[ \left( P_{2}^{*} (P_{1}) - \frac{k}{2}Q^{2} \right) \sum_{i=1}^{4} x_{2}^{i} \right] \]

\[(4b) \quad \text{s.t.} \quad P_{2}^{*} (P_{1}) = \arg \max_{P_{2}} \left( P_{2} (P_{1}) - \frac{k}{2}Q^{2} \right) \sum_{i=1}^{4} x_{2}^{i} \]

A full characterization of the producer’s pricing solution proved intractable. We instead chose four values of cost parameter \( k \) which allow, but do not necessarily guarantee, sales to occur in both periods. Pricing sequences are listed below for each sampled value of \( k \).

Proposition 1 does not hold over the entire domain, as \( \frac{\partial}{\partial \lambda} P_{2}^{*} (P_{1}^{*}) > 0 \) for the pricing sequences \( \{P_{1}^{*} = \frac{3Q(1-\delta)+2\lambda(1-\overline{\mu})(1-\delta)+2\delta\overline{\mu}}{3}, P_{2}^{*} (P_{1}^{*}) = \frac{2\lambda\overline{\mu}}{3} \} \) and \( \{P_{1}^{*} = \frac{2Q(1-\delta)+\lambda\overline{\mu}(1-\delta)+\lambda \delta(1-\overline{\mu})}{2}, P_{2}^{*} (P_{1}^{*}) = \frac{\lambda(1-\overline{\mu})}{2} \} \). Notably, the producer sells to \( \{\nu^{2}, w^{3} \} = \{1, \overline{\mu} \} \) and \( \{\nu^{4}, w^{4} \} = \{1, \overline{\mu} \} \) in \( t = 1 \) under both price schemes. In the final period, the firm sells to \( \{\nu^{2}, w^{2} \} = \{0, \overline{\mu} \} \) when \( \{P_{1}^{*} = \frac{3Q(1-\delta)+2\lambda(1-\overline{\mu})(1-\delta)+2\delta\overline{\mu}}{3}, P_{2}^{*} (P_{1}^{*}) = \frac{2\lambda\overline{\mu}}{3} \} \) and both \( \{\nu^{1}, w^{1} \} = \{0, \overline{\mu} \} \) and \( \{\nu^{2}, w^{2} \} = \{0, \overline{\mu} \} \) for \( \{P_{1}^{*} = \frac{2Q(1-\delta)+\lambda\overline{\mu}(1-\delta)+\lambda \delta(1-\overline{\mu})}{2}, P_{2}^{*} (P_{1}^{*}) = \frac{\lambda(1-\overline{\mu})}{2} \} \). While neither \( i = 1, 2 \) place a premium on quality, \( \{\nu^{2}, w^{2} \} \) greatly cares about social status; here, the second period cohort values status at least as much, if not more than, the early buyer cohort. This drives the result that \( \frac{\partial}{\partial \lambda} P_{2}^{*} (P_{1}^{*}) > 0 \), although it is not clear whether this occurs in equilibrium when both \( \nu^{i} \) and \( w^{i} \) are continuously distributed.