Pay-As-You-Go Insurance: Experimental Evidence on Consumer Demand and Behavior

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► Randomize offers to an important segment of the auto-insurance market

  ► Traditional 3-month contract

  ► Pay as You Go
    ► 20% discount
    ► "market rate"
    ► 20% surcharge

  ► Pay as You Go w/ bundle discount

- ▶ Randomize offers to an important segment of the auto-insurance market

- ▶ Collect very rich data

    - ▶ Risk-rated pricing + insurance decisions (from the insurer)

    - ▶ Payment data (from the partner insurer) via Stripe

    - ▶ Credit score data for experimental subjects via Experian

    - ▶ Underwriting data for competitor sign-ups

    - ▶ Car characteristics via CARFAX

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  ► Underwriting data for competitor sign-ups ← I'd like to learn more about this!

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- ► Randomize offers to an important segment of the auto-insurance market

- ► Collect very rich data

- ► Clear ITT findings
  - ► Enrollment increases by $\geq 200\%$ when PaYG is offered
  - ► Enrollment increases 17% further with a \$1 decrease in daily premium

1. What are the frictions that keep low income ppl from buying auto insurance?

2. Are "Pay as You Go" programs good?

1. Which frictions keep low income people from buying auto insurance?
   - ▶ Unraveling?
     - ▶ Low-usage drivers can't separate from high-usage drivers

   - ▶ Liquidity?
     - ▶ Credit constraints are binding for big lump sum payments

   - ▶ Limited liability?
     - ▶ The price is too high given the risk of enforceable punishments

2. Are "Pay as You Go" programs good?

1. Which frictions keep low income people from buying auto insurance?

2. Are "Pay as You Go" programs good?
   - ▶ What does PaYG select on?
     - ▶ Do PaYG buyers drive less?
     - ▶ Does insuring PaYG buyers cost the same?
   - ▶ Does moral hazard matter?
     - ▶ Does PaYG discourage driving?
     - ▶ Might PaYG encourage "partial insurance" (e.g. paying for days with high risk)?
   - ⇒ What would equilibrium prices + costs to insure be?

- ▶ Evidence that PaYG drivers need less coverage
    - ▶ ITT on number of days covered is smaller than raw take up
    - ▶ ITT on "days insured" is smaller than "days covered"

- ▶ Evidence that PaYG drivers have liquidity constraints
    - ▶ Non-payments are more likely just before payday

- ▶ Evidence that price is binding
    - ▶ Relatively high price elasticities

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⇒ This is what the paper focuses on now

▶ How many people renew their PaYG coverage?
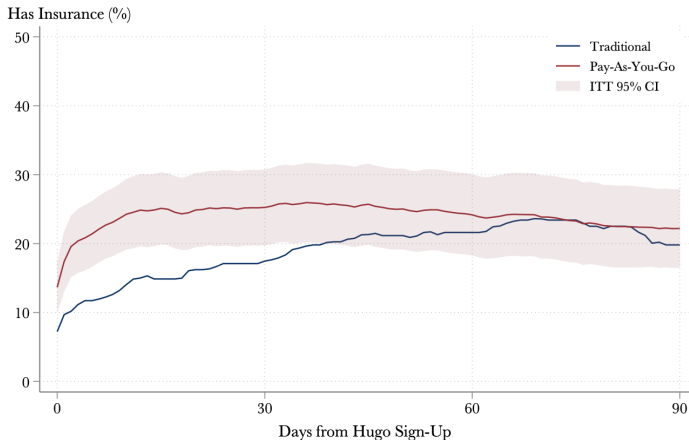
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- ▶ If many don't renew, might there be other important frictions to PaYG?

- ▶ Is it fair to compare price-per-day if competitors offer prices per 3-months?

- ▶ How should we think of the "market rate" prices offered out of equilibrium?

▶ Buyers who chose different bundle sizes seem different

    ▶ $\approx 50\%$ of buyers chose a 3-day package independent of bundle discounts

    ▶ $\approx 11\%$ of buyers switched from 7-day package to a discounted bundle

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   ⇒ Why should we think that liquidity is the only difference between them?

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    ⇒ Why should we think that liquidity is the only difference between them?

▶ Could you use bundle sizes for a "positive correlation" test?

    ▶ Higher # of days purchased → higher coverage

    ▶ Higher # days used (?) → higher cost

▶ The sample is (relatively) limited both cross-sectionally and inter-temporally
  ▶ Relatively small sample of drivers
  ▶ Limited scope for heterogeneity

▶ No individual pretrend
  ▶ Hard to distinguish selection from moral hazard

▶ Too short a time period to see driving outcomes
  ▶ Probably not enough time to see (rare) accident or traffic violation events
  ▶ No claims data anyway (?)

▶ Frame the paper as a (short-run) demand-focused exercise

   ▶ Strong evidence that there is demand for PaYG contracts by marginal consumers

   ▶ Strong evidence that prices + bundle-sizes matter for coverage choices

   ▶ Compelling explanation for underlying mechanism:
     ⇒ Drivers may want less coverage
     ⇒ liquidity constraints are binding

▶ Frame the paper as a (short-run) demand-focused exercise

▶ Think more carefully about how inter-temporal bundles should be compared
  ▶ Is it fair to compare one 3-day bundle with one 30-day bundle if renewals are not guaranteed?

► Frame the paper as a (short-run) demand-focused exercise

► Think more carefully about how inter-temporal bundles should be compared

► Think about whether there's evidence that welfare might increase through selection?

  ► Could the unconditional "market rate" (or even 20% below) be overpriced?

▶ Frame the paper as a (short-run) demand-focused exercise

▶ Think more carefully about how inter-temporal bundles should be compared

▶ Think about whether there's evidence that welfare might increase through selection?

⇒ Be clearer about what is happening with "convergence" of the % insured.

   ▶ Are you claiming the two groups are the same after 3 months?

   ▶ Is there correlation with treatment arm price?

- ▶ Isn't Metro-Mile available in California?

- ▶ Why doesn't this insurer offer financing?
    - ▶ Apparently even grocery stores are doing this now :X

Thank You