Anatomy of a Slow-Motion Health Insurance Death Spiral

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Introduction

- Death spirals rare and exotic
- More interest now
- ACA -> more likely
- Documented spirals
  - Group insurance
  - Quick
- We document spiral
  - Individual insurance
  - Very slow, 1981-2009, 28 years

Current Interest and ACA

- Googled “adverse selection death spirals” June 17, 2014
- 311,000 hits
- 9 of first 10 hits were about the ACA
- At end, lessons of for ACA

Adverse Selection Death Spiral Defined

- Dynamic
- Low risks drop out
- Premiums rise
- More low risks drop out
- Eventually, very high risks, high premiums
- Few, if any insured, plan is dead

More on Adverse Selection

- Timing: Time of purchase or renewal
- Two sources
  - Classic = Asymmetric information
  - Policy = Insurers don't use information
  - (E.g., mandatory community rating)
- Most adverse selection is policy-based

Previously Documented Death Spirals

- Cutler and Reber (1998)
- Sutton, Feldman and Dowd (2004)
- Two different episodes
- Both group insurance
- Both short, 3 years
- Employer dropped the “dead” plan

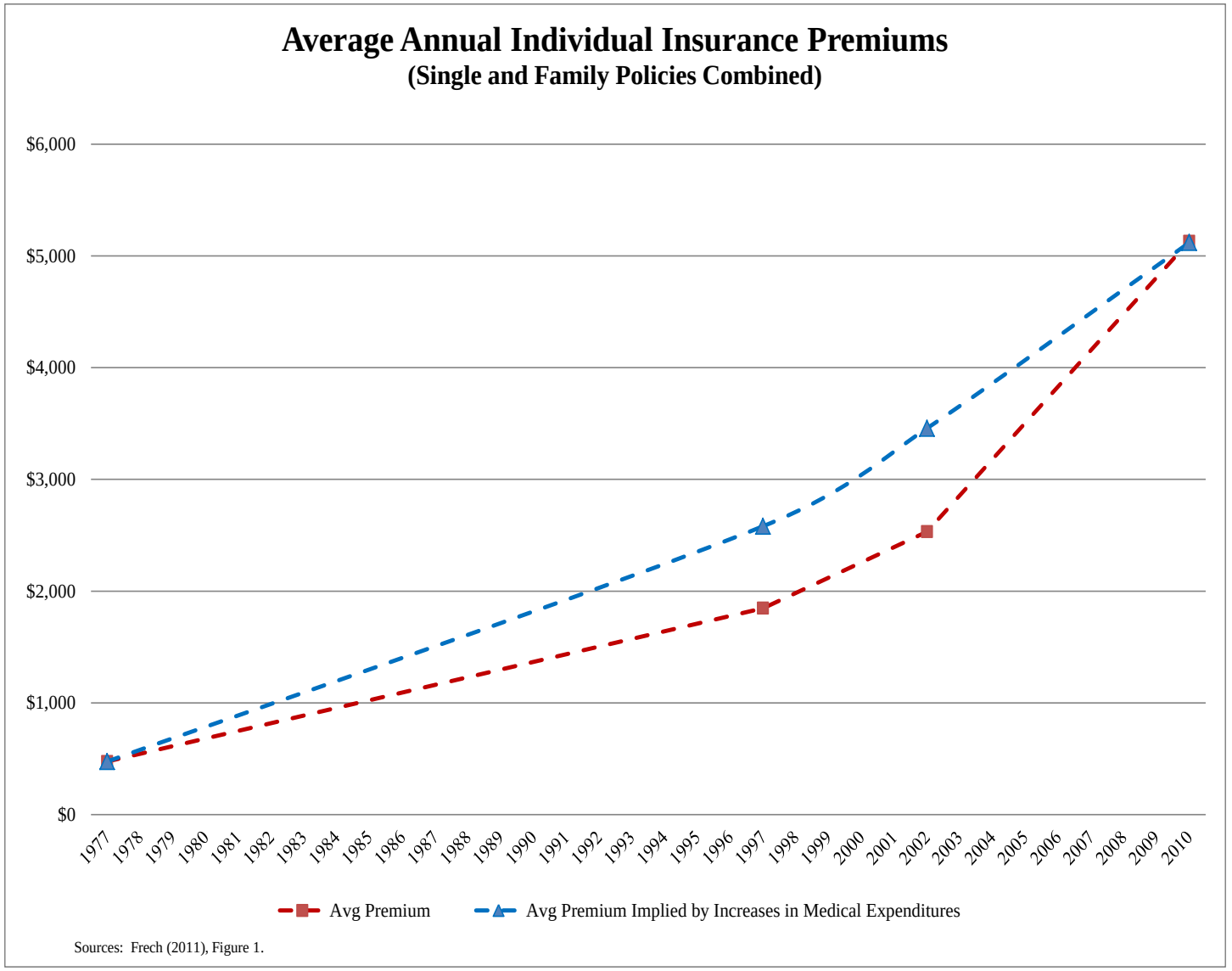
Our Death Spiral

- Individual plan
- Related to closing the block
- Coordinated Health Insurance Plan (CHIP)
- Prudential
- Premiums up, factor of 7, compared to yarkstick
- Very few members by 2009
- Litigation: *Beverly Clark, et al. v. Prudential Insurance Company of America*

Premiums Determined by Costs Over Long Periods

- Loss ratios = (health care cost)/premiums
- Stable over long periods
- 1970-1995, from Morrisey (2008)
- Groups: 75% to 98%
- Individual: 48% to 67%
- Mostly costs, profits are small

Estimate Premiums With Expenditures



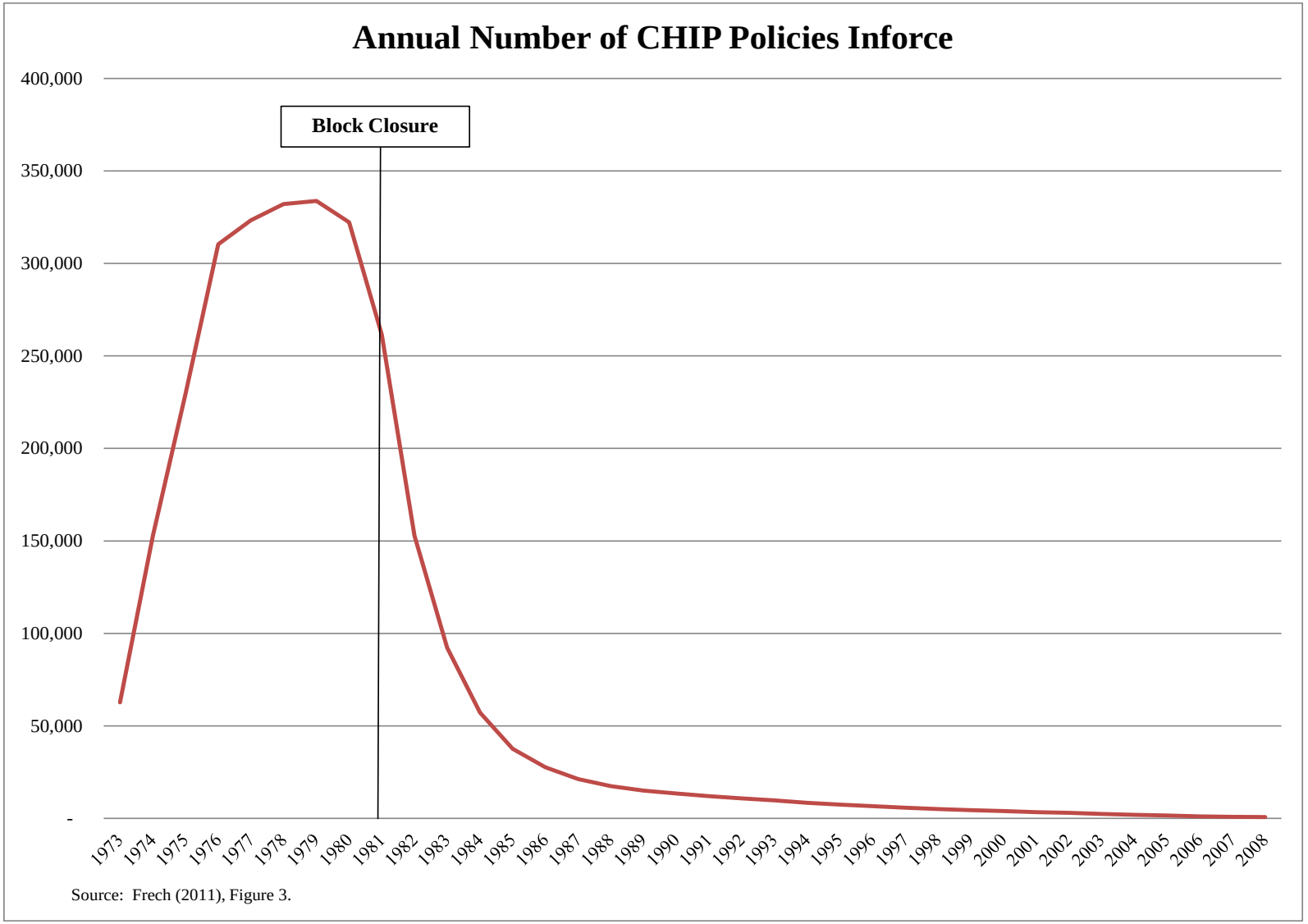
Closed Block Causes Adverse Selection

- Stops flow of new low-risk policyholders
- Existing pool becomes higher risk
  - Low risk policyholders move
  - High risk policyholders stay
  - “Adverse retention”
- Recognized by actuaries and public policy
  - E.g. California 1993, Arkansas 2006

Rise and Fall of CHIP Plan

- 1973, Prudential starts
- Maximum inflow over 200,000 in 1976
- Dec., 1981, closed the block
- No other blocks for rating
- Rapid decline

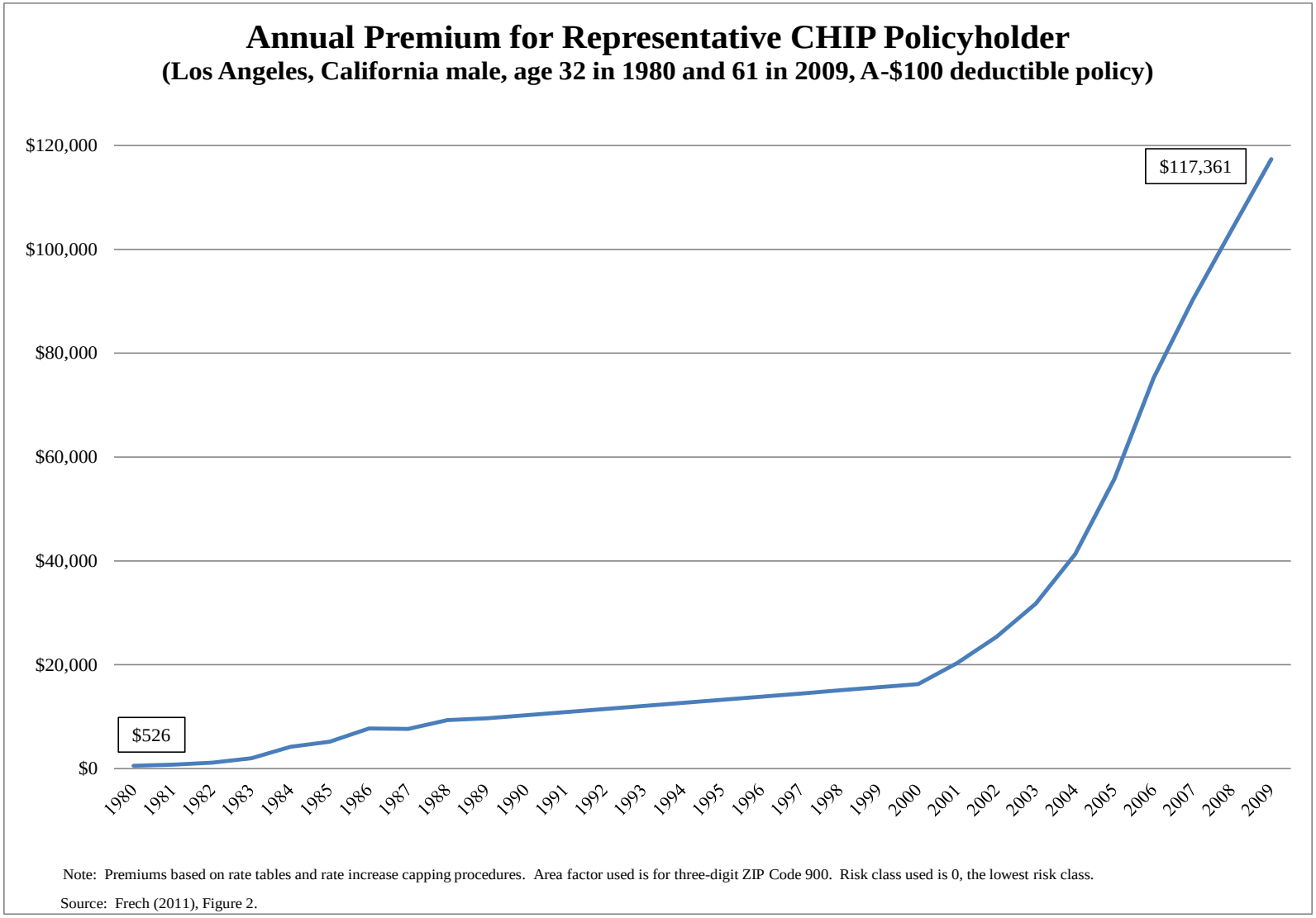
Number of CHIP Policies, 1973-2008



Premium History

- More complex
- Messy nonlinear capping of increases
- Varied over time
- Increases varied somewhat over deductibles
- Next slide, capping, specific person, location, deductible, allowed to ages

CHIP Premium History: 1988-2009



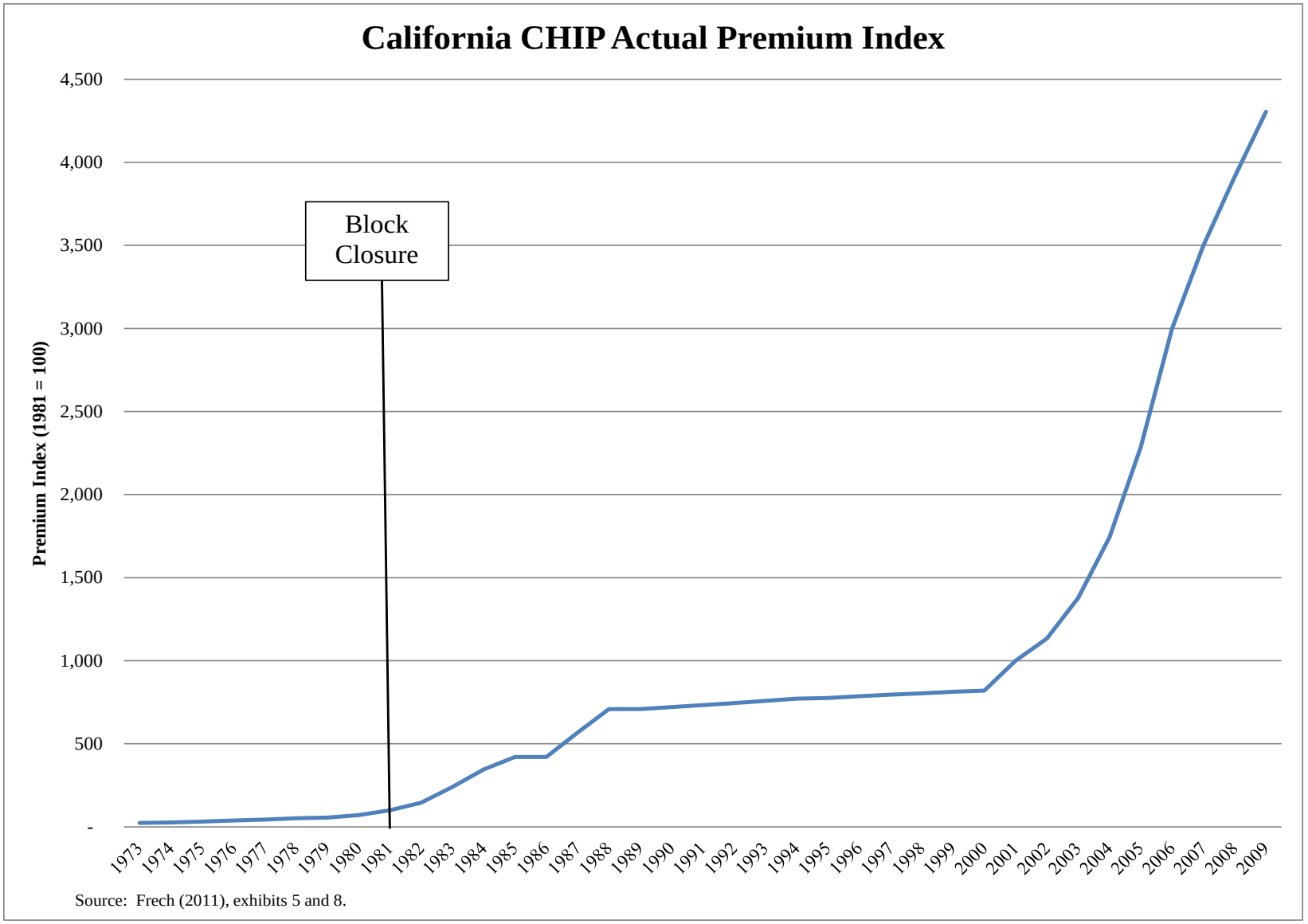
Note: Premiums based on rate tables and rate increase capping procedures. Area factor used is for three-digit ZIP Code 900. Risk class used is 0, the lowest risk class.

Source: Frech (2011), Figure 2.

Creating a Premium Index

- Last graph, specific person, location, deductible, allows aging
- Want to calculate general index next
  - No aging
  - Weighted average of increases

CHIP Premium Index: 1973-2009



Source: Frech (2011), exhibits 5 and 8.

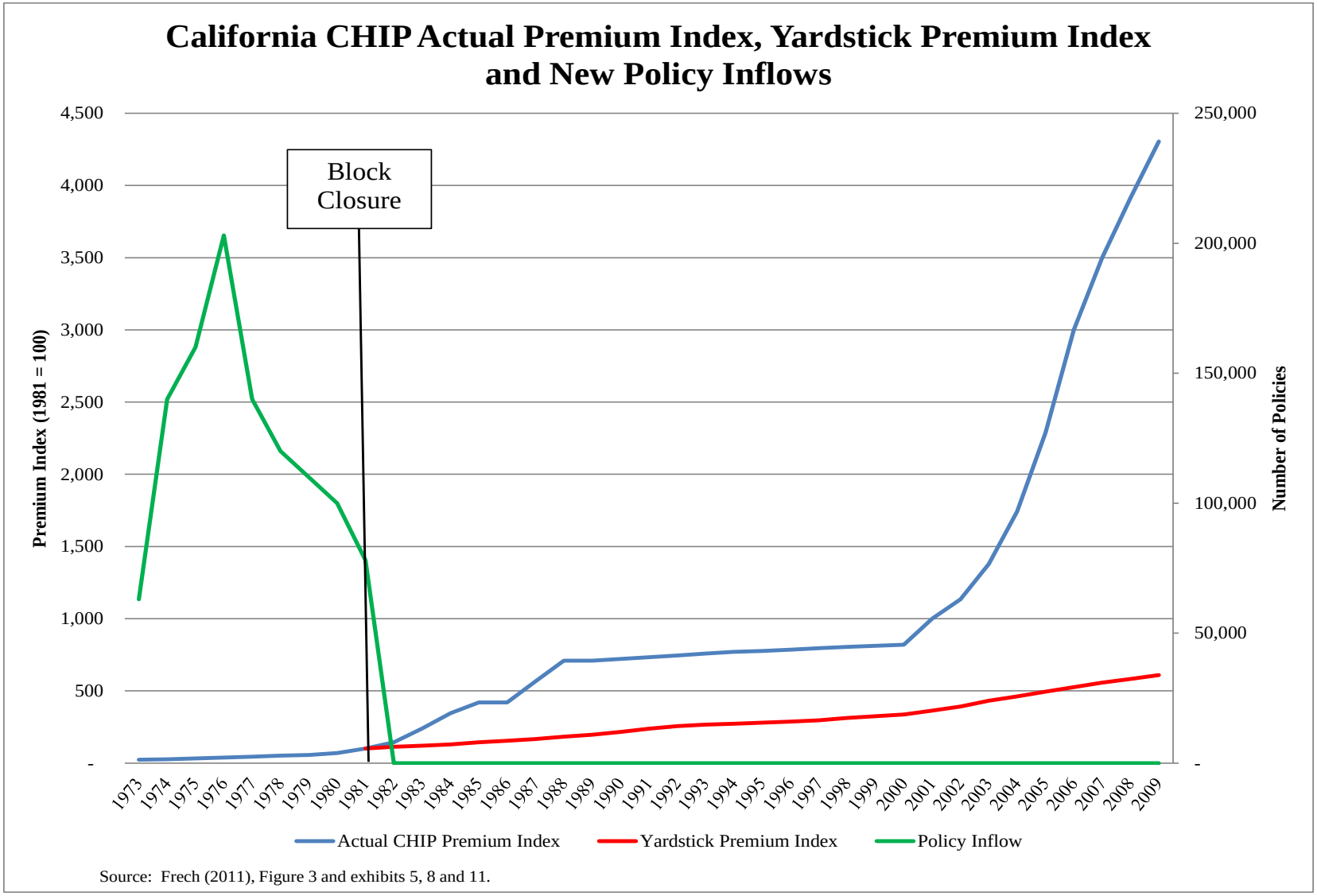
Creating a Yardstick

- Personal health care expenditure (PHC)
- Index and yardstick set to 100 at block closure
- Growth of premiums, no adverse selection
- Main source of variation of premiums
- Fits market data well
- Implies roughly constant level of competition

Yardstick and Market Measures

- Single individual, 2002—2009
  - AHIP, HIAA, < 65, $2,070—$2,985
  - Compound Average Growth Rate (CAGR) = 5.4%
  - PHC, $4,761—$6,796, GAGR = 5.2%
- Combined Single & Family, 1977—2009, 2010
  - Cafferata, Kaiser, 1977—2010, CAGR = 7.5%
  - PHC, 1977—2009 CAGR = 7.6%

Premiums, Yardstick and Inflows



Source: Frech (2011), Figure 3 and exhibits 5, 8 and 11.

28 Years, Not 3: Why so Slow?

- Prudential subsidized CHIP
- Much by caps on increases
- Caps 1990 on
- Much stricter in the 1990s
- Policy change after that

Rate Increase Caps

CHIP Annual Premium Rate Increase Caps (California)

Cap Years	Increase Capped at Lesser of				
1990 - 1995	10%	or	$50	or	Rate Table
1996 - 2000	12%	or	$50	or	Rate Table
2001 - 2002	25%		or		Rate Table
2003	30%		or		Rate Table
2004 - 2006	35%		or		Rate Table
2007	20%		or		Rate Table
2008	15%		or		Rate Table
2009	13%		or		Rate Table

Source: Frech (2011), Appendix B.

Conclusions, Application to the ACA

- Very slow spiral
- By the end, premiums were 7 times yardstick
- ACA, insurers can't use information
  - Modified community rating
  - Mandating high pricing to the young
  - Over 50% for males 25-36 (O'Connor 2013)
  - Guaranteed issue

ACA Closes Blocks

- Noncomplying plans, mass cancellations
- Reversed in some states
- Grandfathered plans -> closed to new people

Selection Against Complying Plans

- Continuing “noncomplying” plans, selection against complying plans
  - High risks most likely to switch out of preferred “noncomplying” plans to complying plans

Mitigations

- Individual and employer mandates
- Risk corridor program
- Other taxes and transfers considered by Administration (Pear 2013)

Pressure on Regulations and Taxes

- Price distortions, not incentive compatible
- Requires strong regulation and tax subsides
- Makes implementation more difficult
- Many economists suggest more incentive-compatible approaches
- Matter of degree—partial movement possible

Australian Liberalization of 2000

- Supplemental insurance community rated
- Slow death spiral 50%--32%, 1985—2000
- Reversed by liberalizing age rating
  - “Lifetime community rating”
  - Premiums depend on age of entry

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