

Are policy makers out of step with their
constituency when it comes to immigration?

Margaret E. Peters, Stanford University
Alexander M. Tahk, University of Wisconsin-Madison

November 13, 2010

Puzzle: Do policy makers reflect their constituents' views on immigration?

- Freeman (1995) argues that immigration policy in liberal democracies is much more open than the average voter wants
 - Cites studies from the 1980s and 1990s that respondents often respond that they would like to reduce immigration
- Our question: do policy changes reflect changes in public opinion?
 - Data
 - Time series of opinion on immigration
 - Time series of immigration policy
 - Use new methods to test the data
- Today, show results from our pilot study on the US

Preliminary findings: policy makers are responsive to public opinion

- Opinion on immigration is very sensitive to question wording
- More open immigration policy \Rightarrow more opposition to immigration
- More opposition to immigration \Rightarrow less open policy
- Public opinion on its own is mean-reverting
- Policy on its own is not mean-reverting
 - It is dragged down by public opinion
 - It has a positive feedback effect on itself—open policy leads to more open policy absent public opinion

Collecting the public opinion data

- Searched Roper from polling data on immigration
- Collected questions on
 - Level of immigration flows
 - Effects of immigrants on the US, the economy, jobs, welfare
 - Illegal immigration: overall opinion, enforcement, amnesty
- Total of 768 polls from 1937-2010

But...opinion on immigration is sensitive to question wording

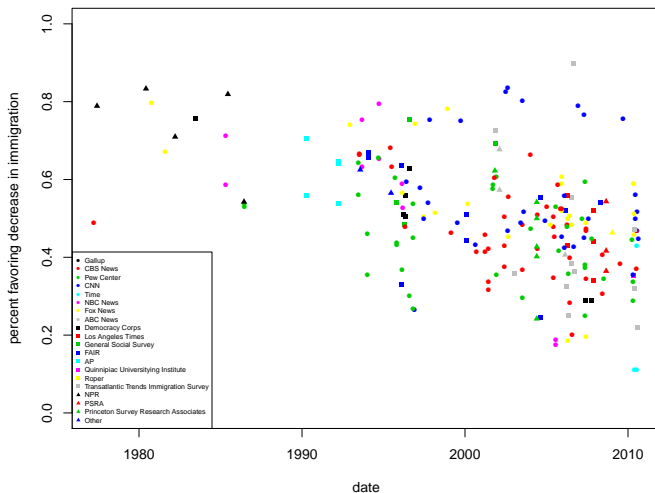


Figure 1: All Polls

But...opinion on immigration is sensitive to question wording

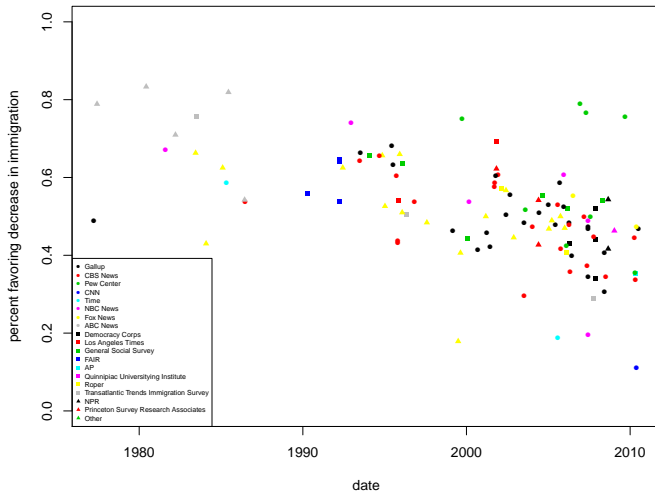


Figure 1: All Polls on Immigration Levels

How we address this sensitivity

- Use Gallop's level of immigration question
 - Wording: "In your view, should immigration be kept at its present level, increased, or decreased?"
- Leads to only 21 polls
- Examine what % of respondents say "decreased"

Gallup Polls

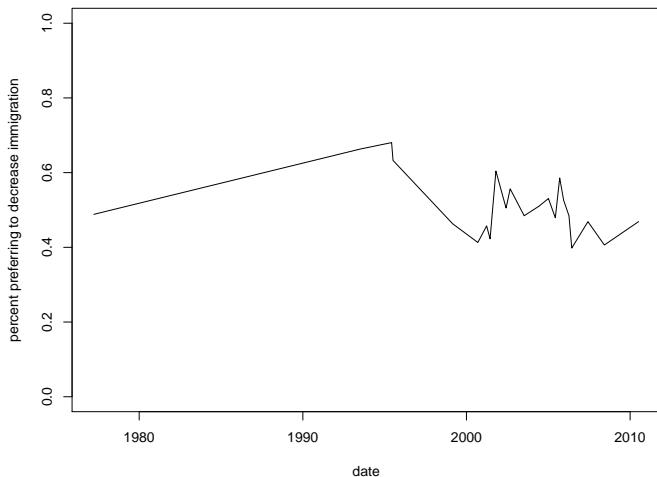


Figure 2: Gallup Polling on Immigration Levels

Collecting data on immigration policy

- Data from Peters (2010)
- Collected data on immigration policy
- Coded policies on restrictiveness by skill type, by nationality, quotas, labor recruitment, family reunification, refugees, rights, citizenship policy, deportation, and enforcement
 - Gave each policy a score from 1-5 on each dimension
 - Took weighted average of the 10 dimensions

US immigration policy

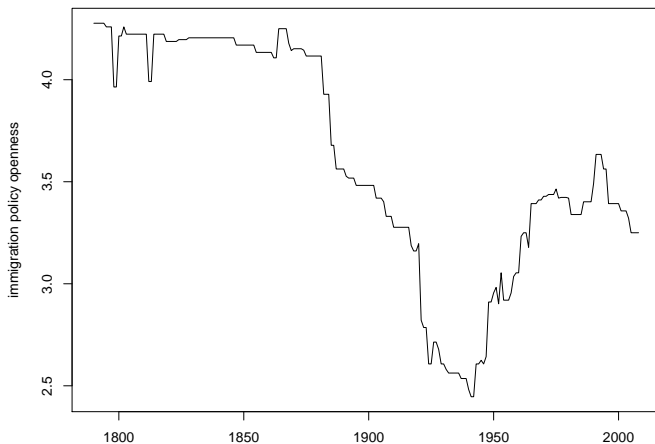


Figure 3: US Immigration Policy

Testing the effect of public opinion on policy and policy on public opinion

- Following Tahk, Krosnick, Lacy, and Lowe (2010) we use a continuous time, mean reverting model
- Advantages over using a first order vector autoregressive model
 - FOVAM aggregates data to a single point in time
 - Allows us to specify that the data are measurements collected over an interval of time
 - Interval is a year
 - Accounts for measurement error and sample size of different polls
 - Similar to vector autoregressive models

Continuous Time, Mean Reversion Model

- Continuous time
 - Series is not treated as existing only at discrete points in time
 - Varying continuously
 - Good for irregularly-spaced polling data
 - Allows us to take into account that polls are out in the field for different periods of time
- Mean-Reversion
 - Variables tend to a certain value - long-term stationary distribution
 - Assumes that public opinion is not infinite or non-existent in the long run

Estimating a continuous time, mean reversion model (1)

- Formally, public opinion and policy at a time t are assumed to be components of an unobserved vector x_t
- x_t follows the multivariate Gaussian Ornstein-Uhlenbeck process
 - Often used to model interest rates, currency exchange rates, and commodity prices stochastically

Gaussian Ornstein-Uhlenbeck Process

$$dx_t = \Theta(x_t - \mu)dt + \Sigma^{1/2}dW_t$$

- μ is the mean
- Θ captures the speed of mean-reversion and the influence of one component of x_t on the other
- $\Sigma dt = (\Sigma^{1/2})(\Sigma^{1/2})^T dt$ is the instantaneous variance-covariance matrix
- W_t is a multivariate Wiener Process (a continuous-time stochastic process)

Estimating a continuous time, mean reversion model (2)

- Apply variance stabilizing transformations to each series
- Use a Kalman filter to calculate the likelihood and track public opinion and policy over time
 - Estimates “true” public opinion and policy
- Allow for the variance of the sample to vary with the sample size
- Estimation in R - see Tahk, Krosnick, Lacy, and Lowe (2010) for details of R package

Fitted public opinion and policy

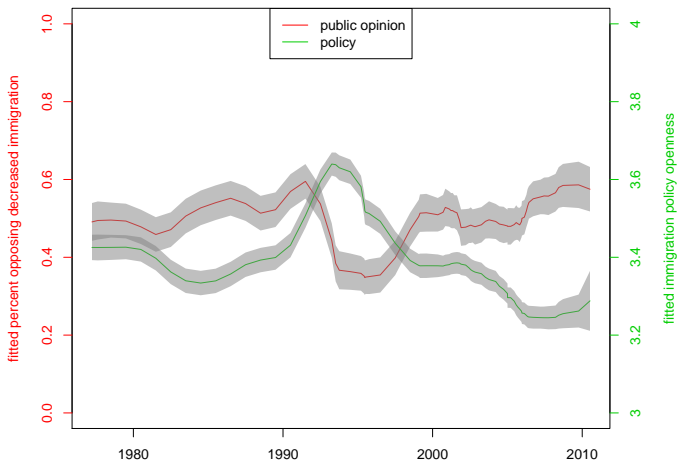


Figure 4: Fitted public opinion and policy

Findings

	Estimate	Standard Error	P-value
Public opinion on public opinion	0.06	0.02	1.32e-3
Public opinion on policy	0.06	0.01	4.42e-5
Policy on public opinion	-0.04	0.01	1.57e-4
Policy on policy	-0.02	0.01	8.86e-3

What the analysis means

- Policy makers are responsive to public opinion
 - Decreasing support for immigration has lead to a less open policy
- The public does not like immigration openness
 - Increasing openness leads to decreasing support for immigration
- Public opinion is mean reverting
- Policy is not mean reverting on its own
 - Public opinion is mean reverting and pulls policy towards the middle when it gets too extreme
 - Without public opinion, openness would lead to more openness

Next steps

- Use more of the polling data
 - Find other questions that behave nicely over time
 - Use a constant shift, h , to control for differences in question wording
- Examine other countries
 - Canada
 - Searched the Canadian Opinion Research Archive and Gallup Canada
 - Have 94 polls from 1957-2010
 - Other advanced industrial democracies

Thank you