Issue Framing as a Generalizable Phenomenon

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Workshop on Language Technologies and Computational Social Science

26 June, 2014

Million Dollar Question

Million Dollar Question

- What does it take to compel people?

Pericles' Funeral Oration to Athenians during the Peloponnesian War (c. 430 BC)

George W. Bush's Speech at Ground Zero (September 14, 2001)

Million Dollar Question

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  - Toward action (e.g., war, voting, lawmaking)

Million Dollar Question

- What does it take, linguistically, to compel people?
  - Toward action (e.g., war, voting, lawmaking)
  - Toward different attitudes

Atomic Energy Lab kit for children (c. 1950)

Just
Married!

Just
Married!
I'm a
Responsible
gun owner
I'm a
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gun owner

Million Dollar Question

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- What does it take, linguistically, to compel people?
- One force: issue framing

Issue Framing

- Issues are multi-dimensional

See Chong and Druckman (2007): “Framing Theory”

Issue Framing

- Issues are multi-dimensional
- Framing: emphasizing one dimension of an issue and, thus, de-emphasizing alternative dimensions

See Chong and Druckman (2007): “Framing Theory”

Immigration

THE LAND IS
FOR
EVERYONE!
NO BORDERS

THE LAND IS
FOR
EVERYONE!
NO BORDERS

We are
WORKERS
Not
CRIMINALS!

THE LAND IS
FOR
EVERYONE!
NO BORDERS

We are
WORKERS
Not
CRIMINALS!

AMERICA
HAS
BEEN
INVADED

THE LAND IS
FOR
EVERYONE!
NO BORDERS

We are
WORKERS
Not
CRIMINALS!

AMERICA
HAS
BEEN
INVADED

STOP
NO MORE
ANTONIO
The U.S. is NOT!!
RESPONSIBLE FOR
SUPPORTING A
FAILED NATION
MEXICO

In Small Towns, Immigrants Show American Pride

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Study Shows State Economies Supported by Undocumented Workers

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U.S.–Mexico Border Weak and Growing Weaker

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U.S.–Mexico Border Weak and Growing Weaker

Trouble in Mexico Drives Surge in Illegal Immigration

Studies Show:
Framing Matters

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Nelson, Clawson & Oxley (1997): “Media Framing of a Civil Liberties Conflict”

Studies Show: Framing Matters

Rose & Baumgartner (1993): “Framing the Poor”

Studies Show: Framing Matters

Baumgartner, De Boef and Boydstun (2008): *The Decline of the Death Penalty*

Yet Framing Is Hard To Study

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- Hard to conceptualize
- Hard to operationalize
- Harder still to computationalize

Goal: Understand How Framing Works For a Given Issue

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Goal: Understand How Framing Works Generally

- **Selection:** *What types of frames are used in discussing an issue?* ***Under what conditions?***
- **Dynamics:** *How do frames rise and fall in an issue debate? Do frames evolve?* ***Under what conditions?***
- **Effects:** *Does framing influence public attitudes and/or policy?* ***Under what conditions?***

Million Dollar Question

- What does it take, linguistically, to compel people?

~~Million Dollar~~ Question

- What does it take, linguistically, to compel people?

Affordable Question

- What does it take, linguistically, to compel people?
- Can we study framing as a generalizable phenomenon?

Collaborative Endeavor

Amber Boydstun, Univ. of California, Davis

Justin Gross, Univ. of North Carolina, Chapel Hill

Philip Resnik, Univ. of Maryland

Noah Smith, Carnegie Mellon Univ.

We Start With Theory

"To frame is to *select some aspects of a perceived reality and make them more salient in a communicating text*

– Entman 1993 (italics in original, color is all mine)

We Start With Theory

"To frame is to *select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation* for the item described."

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Framing Includes
2 Co-varying Parts

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- **Emphasis**
  - Emphasizing one or more aspects of an issue...

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- **Emphasis**
  - Emphasizing one or more aspects of an issue...
- **Motivation**
  - ...in order to advance some goal (ideological, journalistic, etc.)
- Both parts of framing involve ***structure…***

We Have Big Plans

- **Task 1:** Unified frame codebook

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- **Task 2:** Manual frame identification (emphasis & tone)

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- **Task 4:** Algorithms for frame discovery (emphasis & tone)

We Have Big Plans

- **Task 1:** Unified frame codebook
- **Task 2:** Manual frame identification (emphasis & tone)
- **Task 3:** Algorithms for frame identification (emphasis & tone)
- **Task 4:** Algorithms for frame discovery (emphasis & tone)
- **Tasks 5-N**: Examine patterns of framing within and across issues
  - Selection
  - Dynamics
  - Effects on public opinion and public policy

Task 1: Can We Track Frames Across Issues, Apples to Apples?

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- **Policy Frames Codebook**
  - Categorization of policy frames
  - Generalizable across issues

We Count 15 Frame Emphasis Dimensions that Cross-Cut Issues

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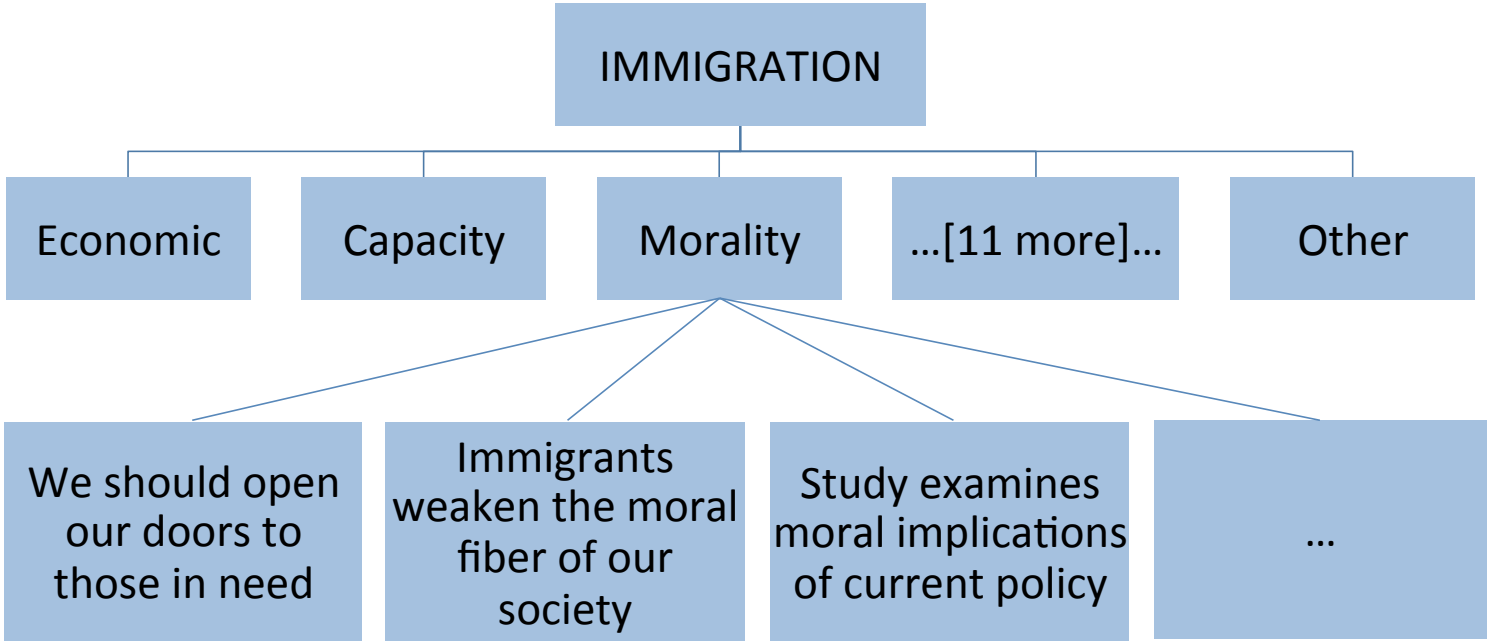
1. Economics
2. Capacity & Resources
3. Morality
4. Fairness & Equality
5. Legality, Constitutionality & Jurisdiction
6. Crime & Punishment
7. Security & Defense
8. Health & Safety
9. Quality of Life
10. Cultural Identity
11. Public Sentiment
12. Political Factors & Implications
13. Policy Description, Prescription & Evaluation
14. External Relations & Reputation
15. Other

Issue-Specific Frames Are Nested Within Dimensions



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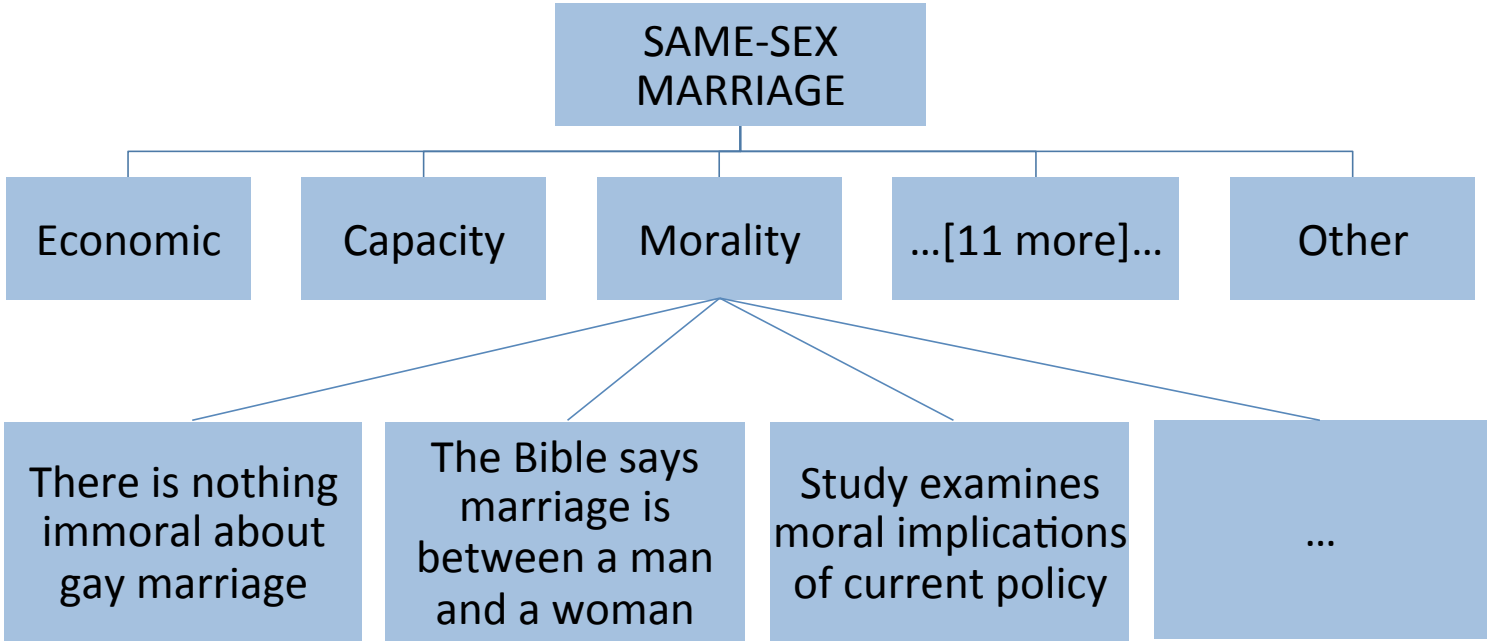

We Also Track for Tone (Pro/Anti/Neutral)

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- **Explicit** Arguments: opinions expressed directly in support for one side of the issue at hand
  - smokers have rights that need to be respected (pro smoking)
  - taxes on tobacco sales are a good idea (anti smoking)

We Also Track for Tone (Pro/Anti/Neutral)

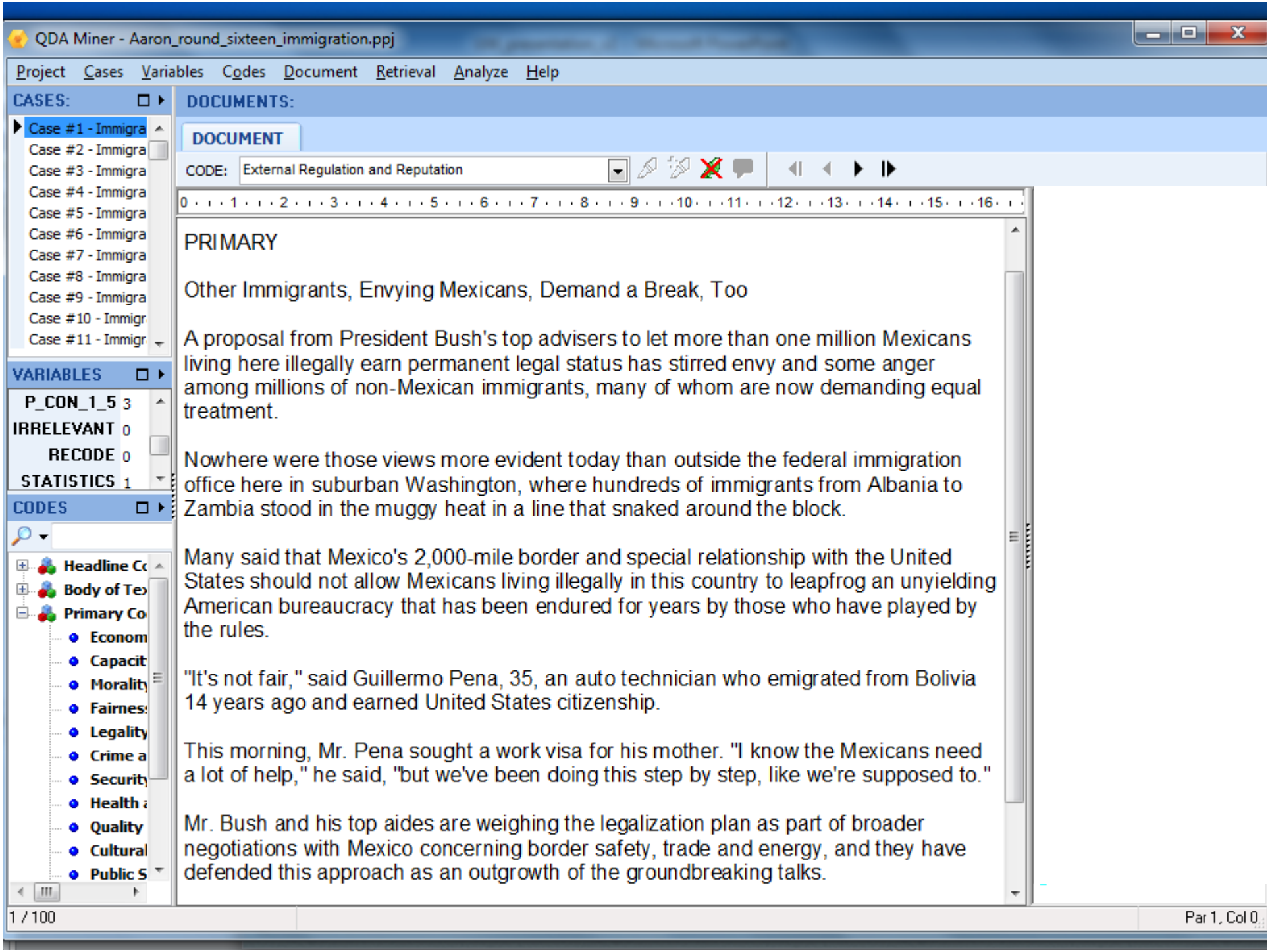
- **Explicit** Arguments: opinions expressed directly in support for one side of the issue at hand
  - smokers have rights that need to be respected (pro smoking)
  - taxes on tobacco sales are a good idea (anti smoking)
- **Implicit** Cues: information that reflects positively or negatively on one side of the issue at hand
  - tobacco company provides jobs for local community (pro)
  - new study links smoking to additional forms of cancer (anti)

Task 2: Manual Annotation

- Five issues (in the United States):
  - **Smoking/tobacco**
  - **Immigration**
  - Same-sex marriage
  - Gun control
  - Marijuana

Task 2: Manual Annotation

- Historical newspaper corpora: ProQuest keyword searches (*LA Times*, *New York Times*, *Wall Street Journal*, *Washington Post*)
- Modern newspaper corpora: LexisNexis keyword searches across 13 newspapers
  - *Atlanta Journal Constitution*
  - *Daily News (New York)*
  - *Denver Post*
  - *Herald Sun*
  - *New York Times*
  - *Palm Beach Post*
  - *Philadelphia Inquirer*
  - *San Jose Mercury News*
  - *St. Louis Post Dispatch*
  - *St. Paul Pioneer Press*
  - *Tampa Bay Times*
  - *USA Today*
  - *Washington Post*


QDA Miner - Aaron_round_sixteen_immigration.ppj
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CODE: External Regulation and Reputation
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Other Immigrants, Envying Mexicans, Demand a Break, Too
A proposal from President Bush's top advisers to let more than one million Mexicans living here illegally earn permanent legal status has stirred envy and some anger among millions of non-Mexican immigrants, many of whom are now demanding equal treatment.
Nowhere were those views more evident today than outside the federal immigration office here in suburban Washington, where hundreds of immigrants from Albania to Zambia stood in the muggy heat in a line that snaked around the block.
Many said that Mexico's 2,000-mile border and special relationship with the United States should not allow Mexicans living illegally in this country to leapfrog an unyielding American bureaucracy that has been endured for years by those who have played by the rules.
"It's not fair," said Guillermo Pena, 35, an auto technician who emigrated from Bolivia 14 years ago and earned United States citizenship.
This morning, Mr. Pena sought a work visa for his mother. "I know the Mexicans need a lot of help," he said, "but we've been doing this step by step, like we're supposed to."
Mr. Bush and his top aides are weighing the legalization plan as part of broader negotiations with Mexico concerning border safety, trade and energy, and they have defended this approach as an outgrowth of the groundbreaking talks.
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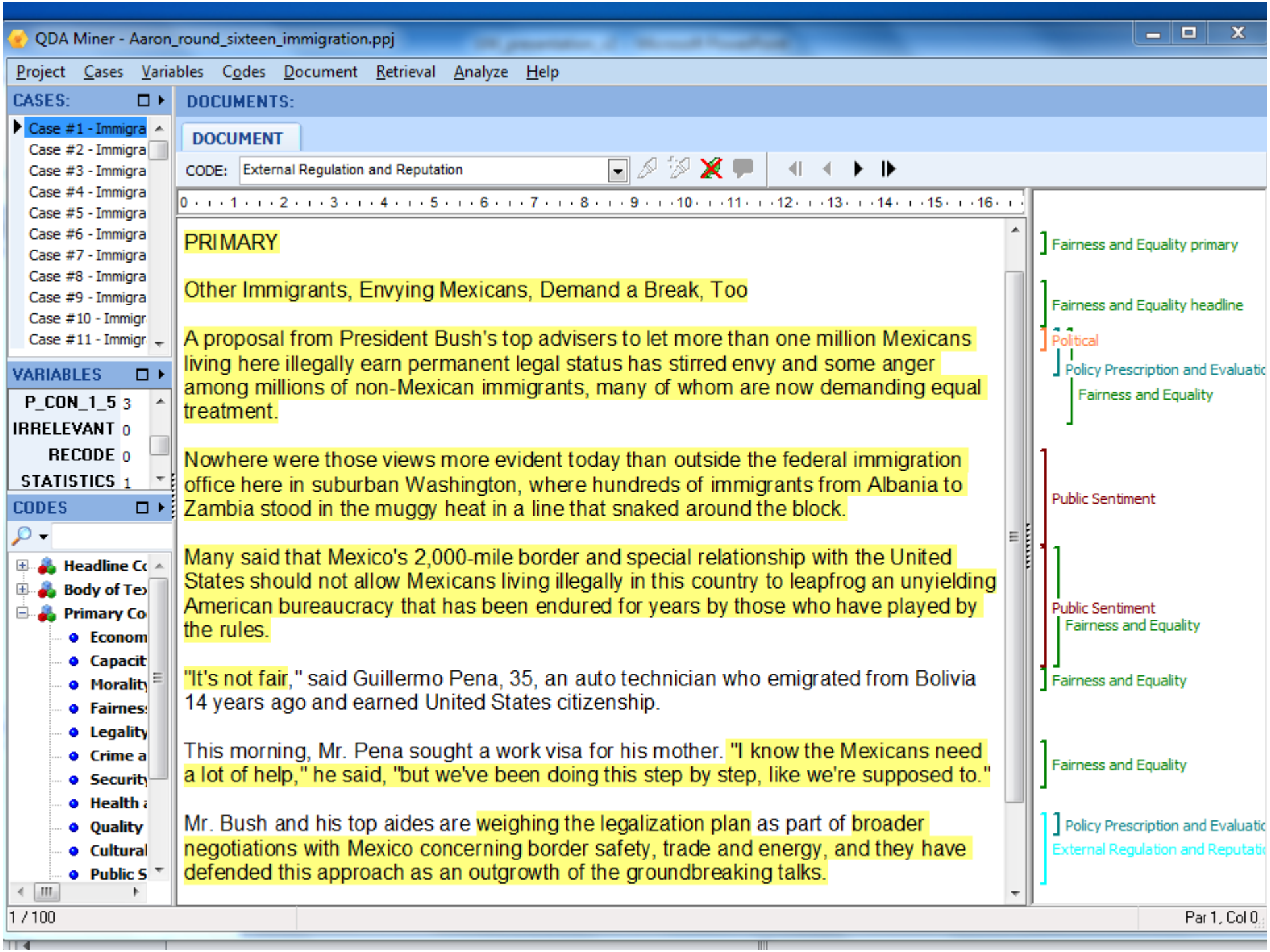
Par 1, Col 0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Fairness and Equality primary
Fairness and Equality headline
Political
Policy Prescription and Evaluatic
Fairness and Equality
Public Sentiment
Public Sentiment
Fairness and Equality
Fairness and Equality
Fairness and Equality
Policy Prescription and Evaluatic
External Regulation and Reputatic
1 / 100
Par 1, Col 0

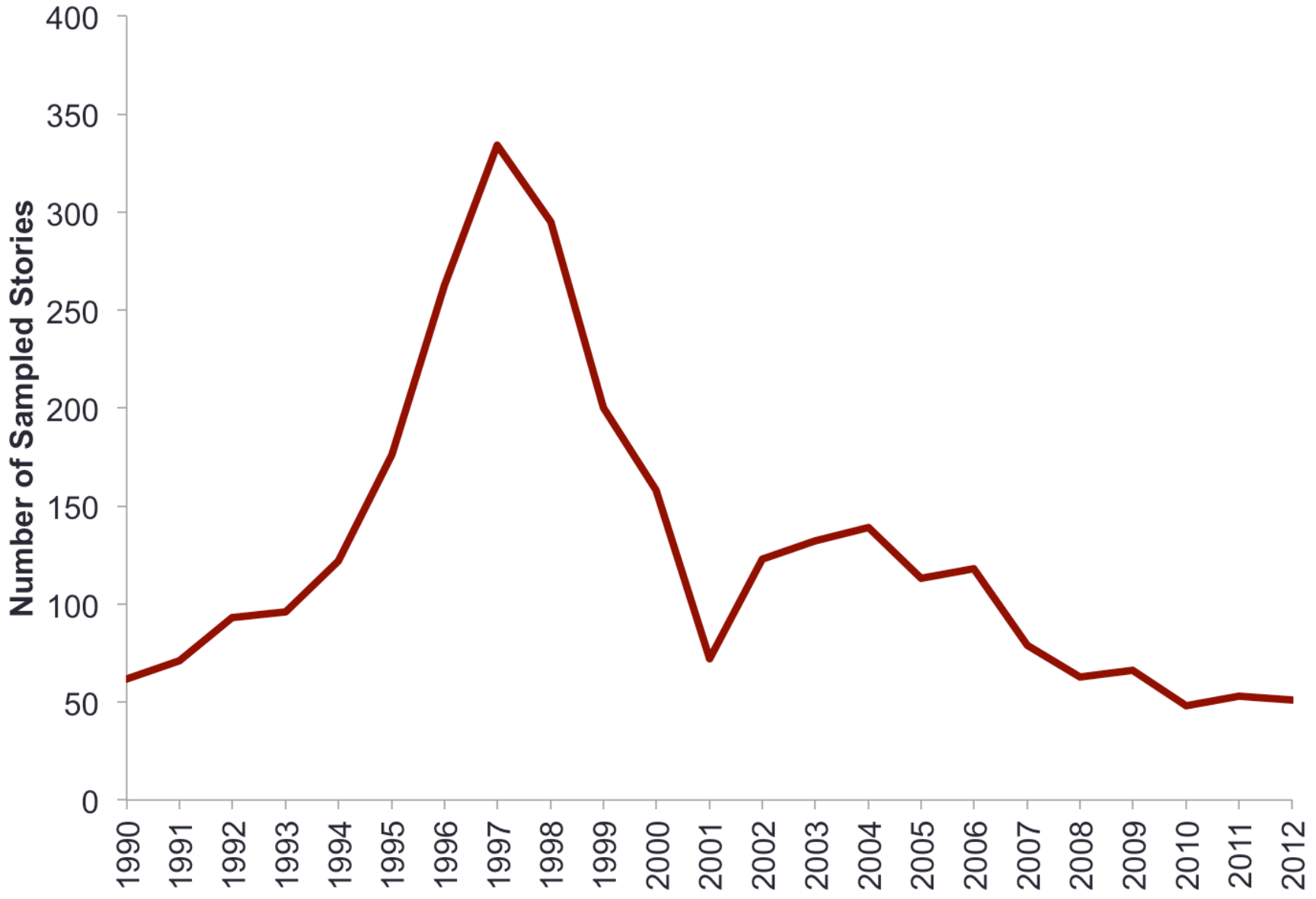
Pilot Data

- 1990–2012
- Smoking/tobacco
  - Sampled N = 2,927 stories (emphasis)
- Immigration
  - Sampled N = 3,004 stories (emphasis)
    = 376 stories (tone)

Pilot Test Goals

- Emphasis
  - Are the unified frame dimensions applicable across issues?
  - Do we see frames not covered in our unified coding scheme?
- Tone

Smoking/Tobacco: Attention



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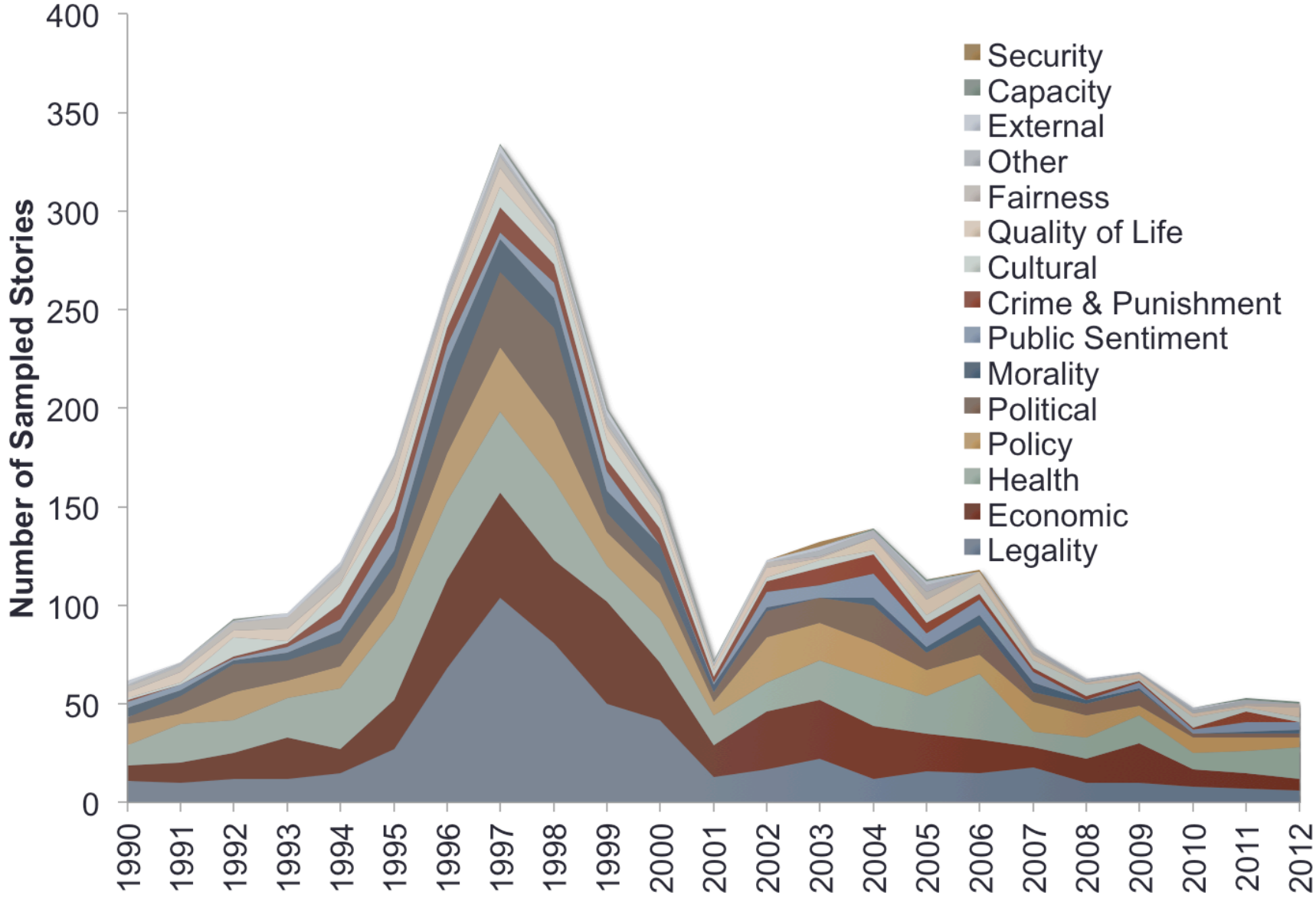
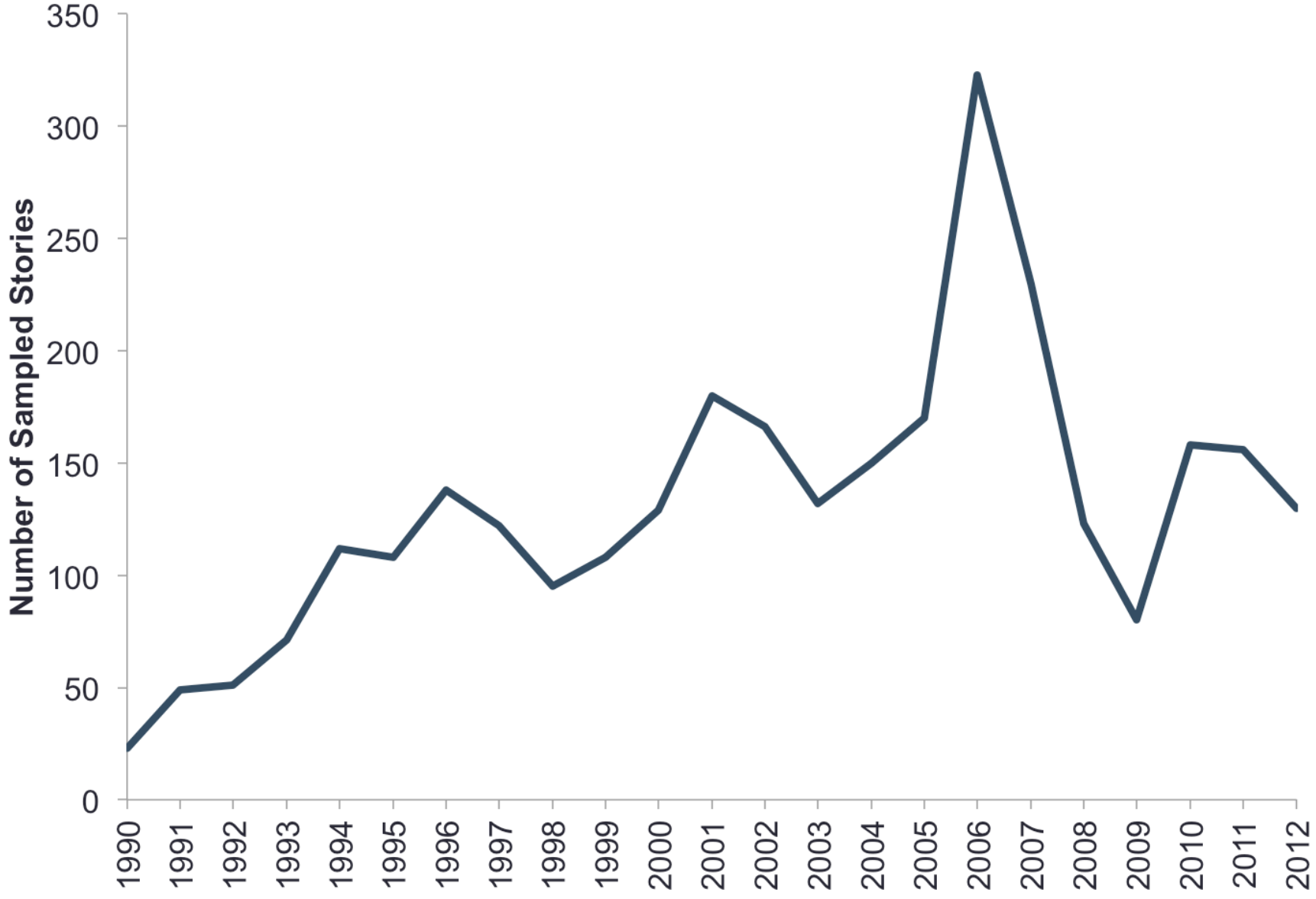
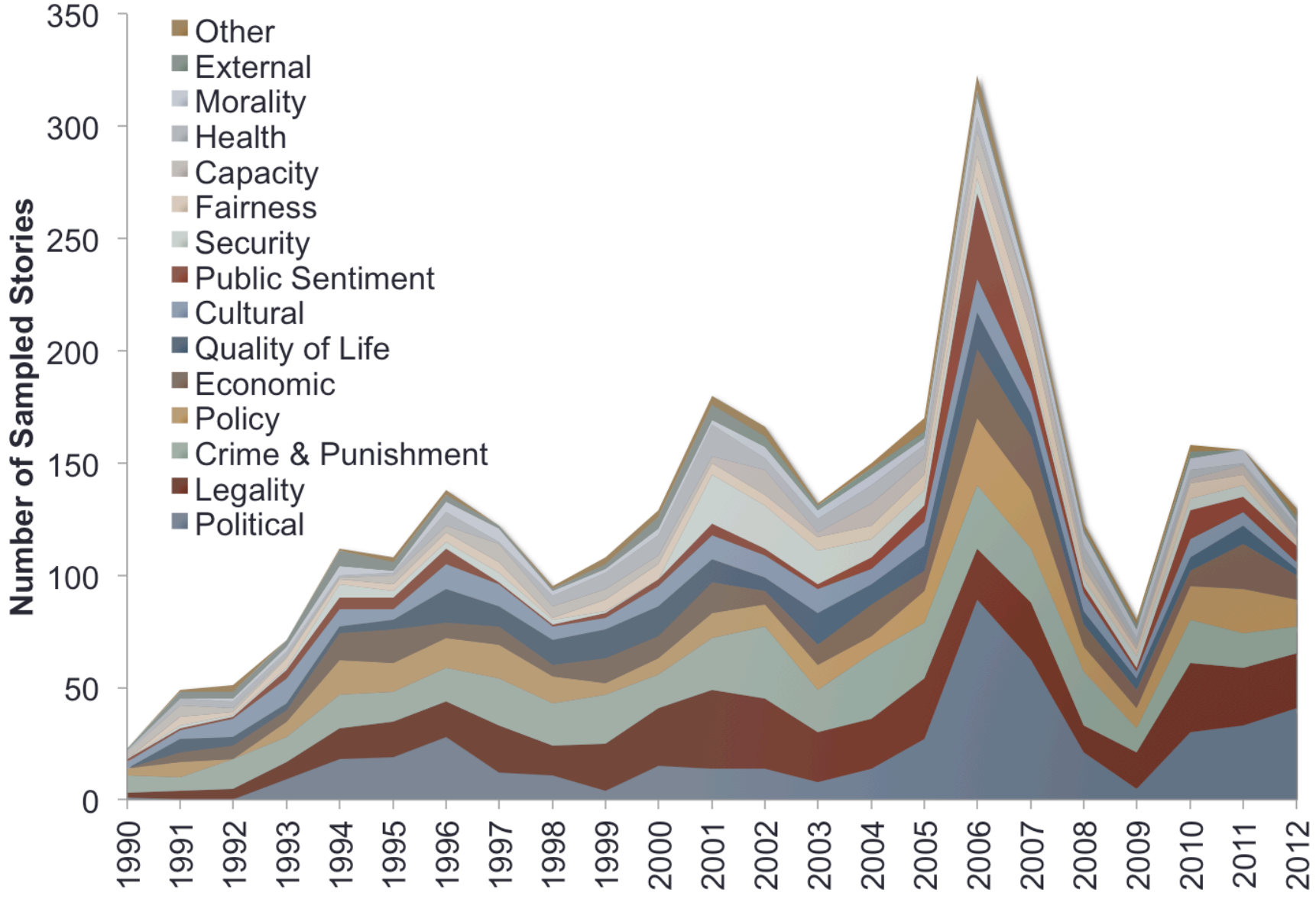


Immigration: Attention



Immigration: Emphasis

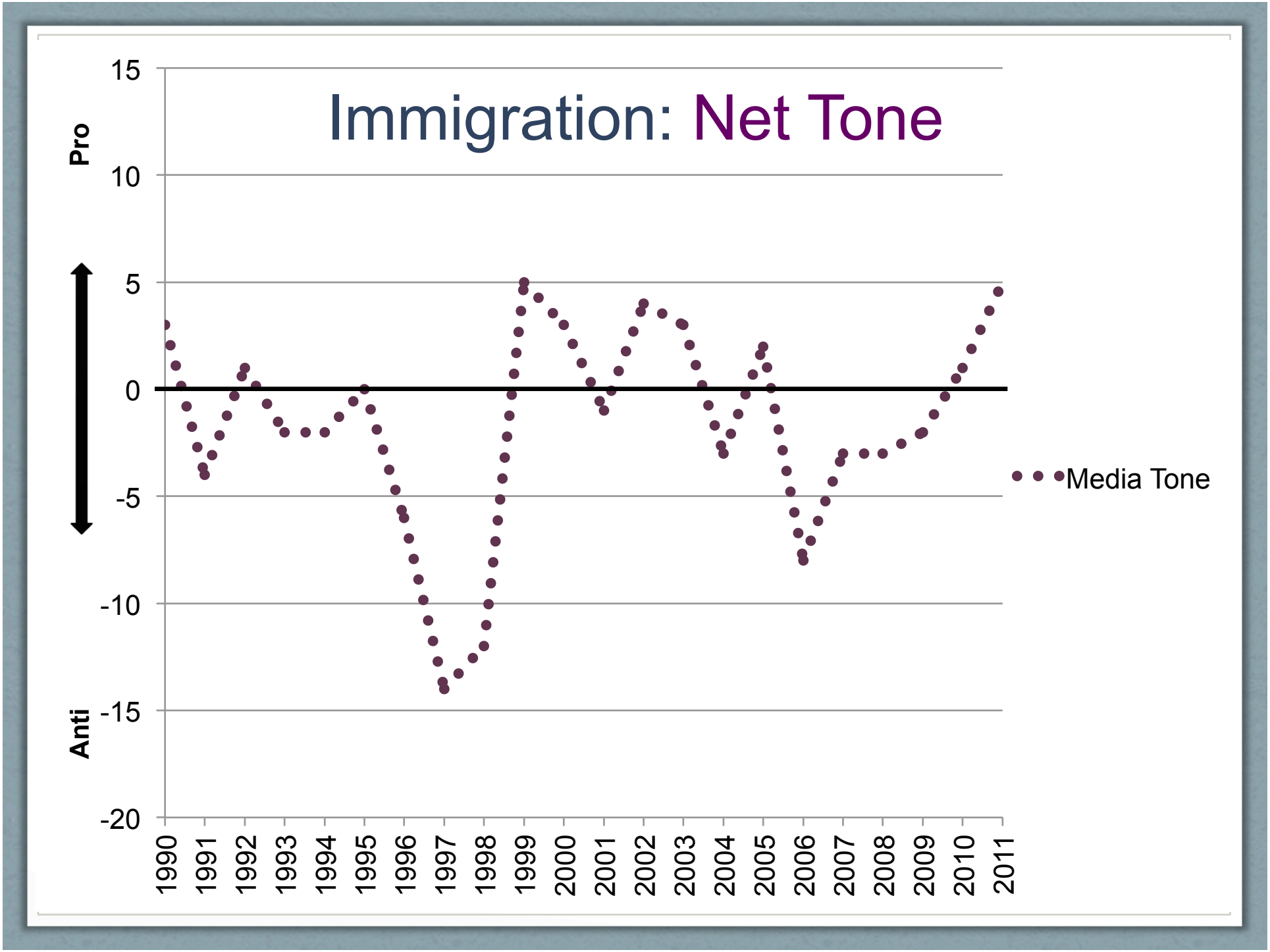


Immigration: Tone

pro-immigration stories

– # anti-immigration stories

net tone


Immigration: Net Tone
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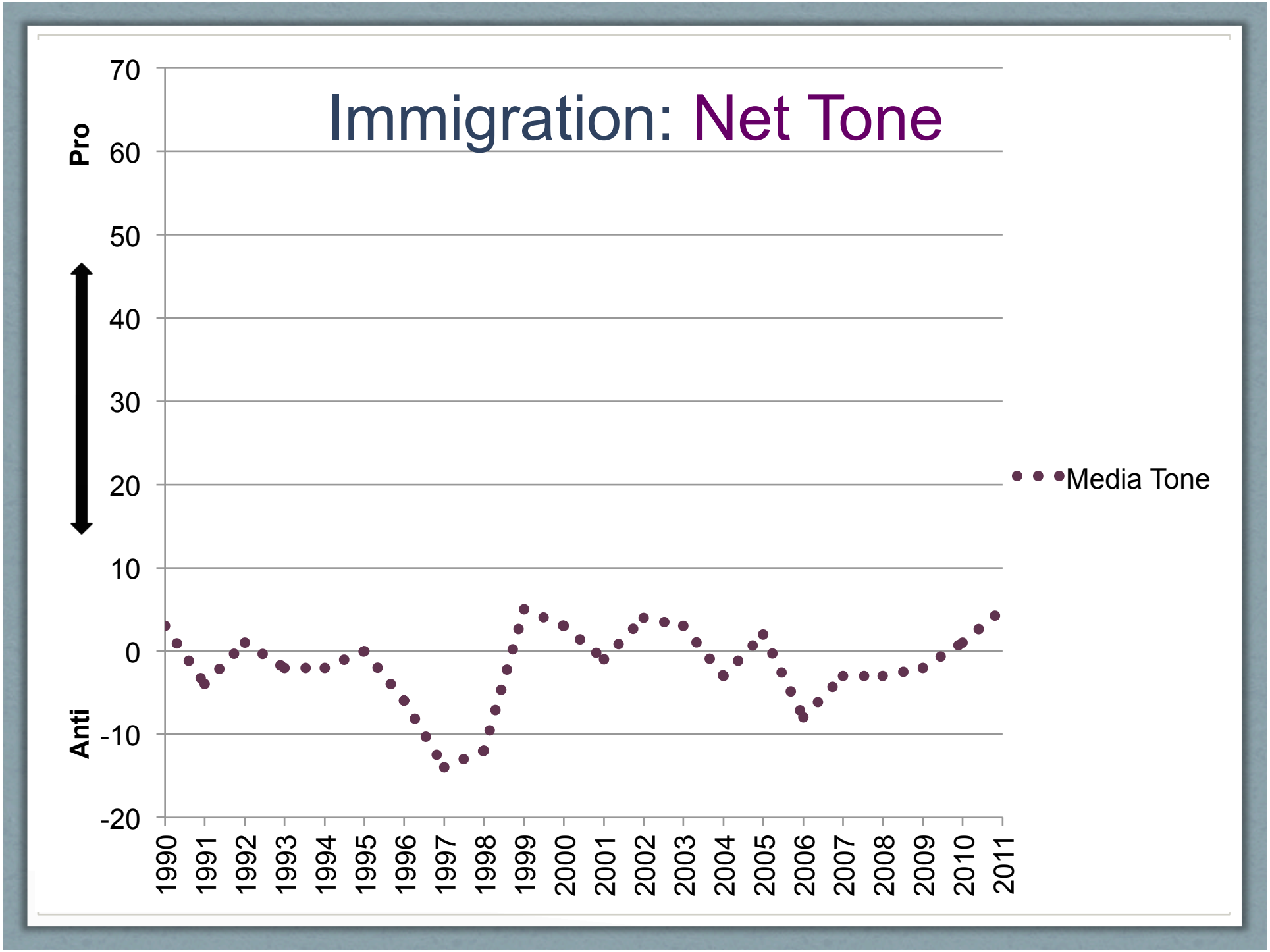
Media Tone


Immigration: Net Tone
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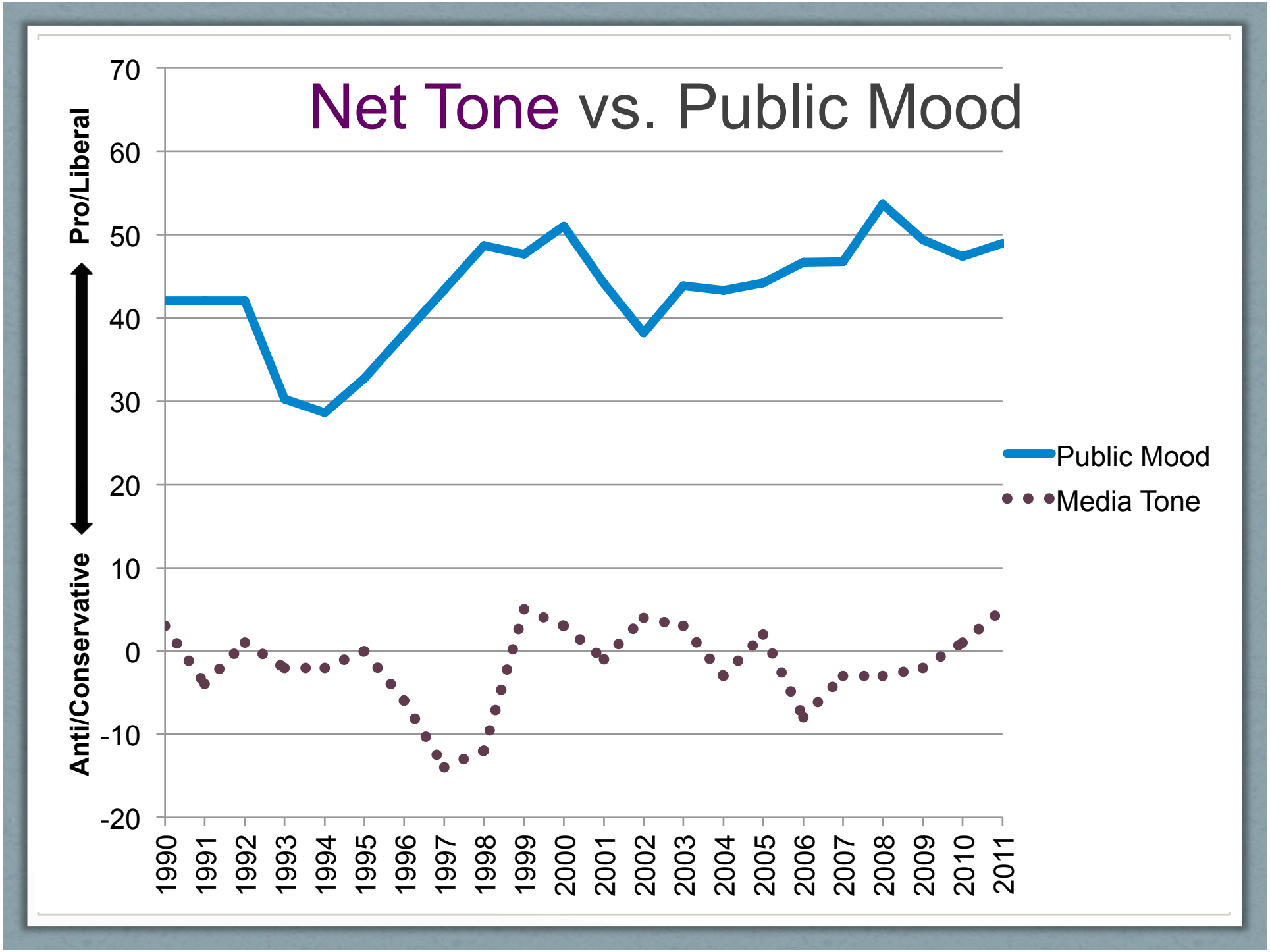
Media Tone


Net Tone vs. Public Mood
Pro/Liberal
Anti/Conservative
70
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2011
Public Mood
Media Tone

Affordable Question

- Can we study framing as a generalizable phenomenon?

Affordable Question

- Can we study framing as a generalizable phenomenon? Yes.

Thanks!

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