H-1B Ready

Anticipating foreign visa demand!

How many H-1B work visa applications should we expect based on how the economy has been doing?

Anne Bauer

Teleborder

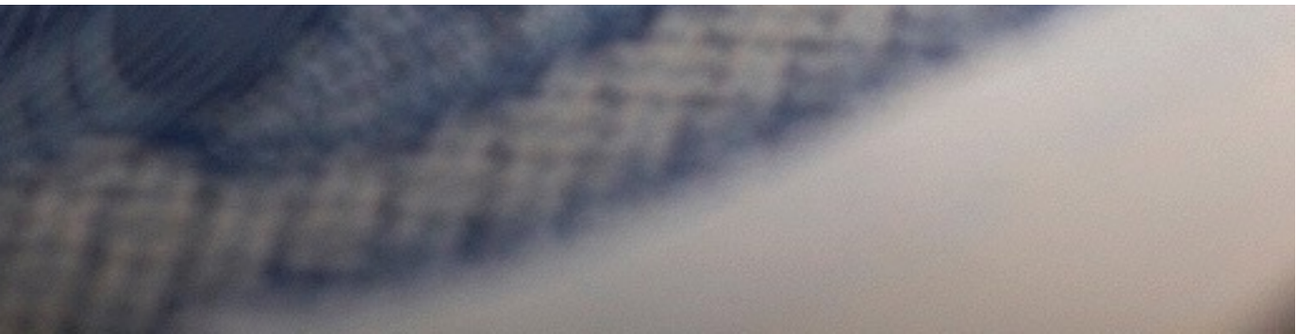
H-1B Data

- Dept of Labor FLC filings by hiring companies
- Publicly available on various government websites

UNITED STATES DEPARTMENT OF LABOR
Employment & Training Administration

LCA Programs (H-1B, H-1B1, E-3)

Fiscal Year	Disclosure File	File Structure
2014	H1B_FY2014.xls	H1B_Record_Layout_FY14.doc
2013	LCA_FY2013.xlsx	LCA_Record_Layout_FY13.doc
2012	LCA_FY2012.xlsx	LCA_Record_Layout_FY12.doc
2011	LCA_FY2011.xlsx	LCA_Record_Layout_FY11.doc
2010	LCA_FY2010.xlsx	LCA_Record_Layout_FY10.doc
2009	LCA_iCert_FY2009.xlsx	H-1B_Record_Layout_FY09.doc
2009(1)	LCA_eFile_FY2009.xlsx	H-1B Efile Record Layout FY09.doc
2008	LCA_FY2008.xlsx	H-1B_Record_Layout_FY08.doc



Foreign Labor Certification Data Center
Online Wage Library www.flcdatacenter.com

Discontinued Systems

H-1B Fax System Data	H-1B Efile Data
2007 No Fax Data Available	2007 mdb txt
2006 mdb txt	2006 mdb txt
2005 mdb txt	2005 mdb txt
2004 mdb txt	2004 mdb txt
2003 mdb txt	2003 mdb txt
2002 mdb txt	2002 mdb txt
2001 mdb txt	2001 No EFile Data Available

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2011	LCA_FY2011.xlsx	LCA_Record_Layout_FY11.doc
2010	LCA_FY2010.xlsx	LCA_Record_Layout_FY10.doc
2009	LCA_iCert_FY2009.xlsx	H-1B_Record_Layout_FY09.doc
2009(1)	LCA_eFile_FY2009.xlsx	H-1
2008	LCA_FY2008.xlsx	H-

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The data are available for download by fiscal year (October to September) in Microsoft Access or comma delimited text format. To speed up the download process the data are in ZIP files, however the files are still very large, and can take 2 hours or more to download using a dial-up connection. A ZIP file utility is necessary to extract the files. How to view Zip files.

2006 mdb txt	2006 mdb txt
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2011	LCA_FY2011.xlsx	LCA_Record_Layout_FY11.doc
2010		
2009		
2009(1)		
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Please note that 2011-2012 and later updates represent a break in the series. *The wage file has been updated to the Standard Occupational Classification rev. 2010, and there are minor changes to the geographic definitions as well as a major update to the corresponding O*Net information.*

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2010		
2009		
2009[1]		
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[1]In FY 2009 the iCert Visa Portal System replaced the H-1B Legacy System. Consequently, two FY 2009 H-1B data disclosure files were published-the "H-1B Case Data FY2009" file for applications processed through the iCERT Visa Portal System beginning on April 15, 2009 and the "H-1B Efile Case Data FY2009" file for applications processed through the H-1B Legacy System.

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2006 mdb txt — 2006 mdb txt
2005 mdb txt — 2005 mdb txt
2001 mdb txt — 2001 No EFile Data Available

October 1 through September 30 period (all disclosure data sets are saved in the Microsoft Excel (.xls) file format). *Each data set is cumulative, containing unique records identified by the applicable OFLC case number, and any noticeable typographical or other data anomalies may be due to internal data entry or other external customer errors in completing the application form.*

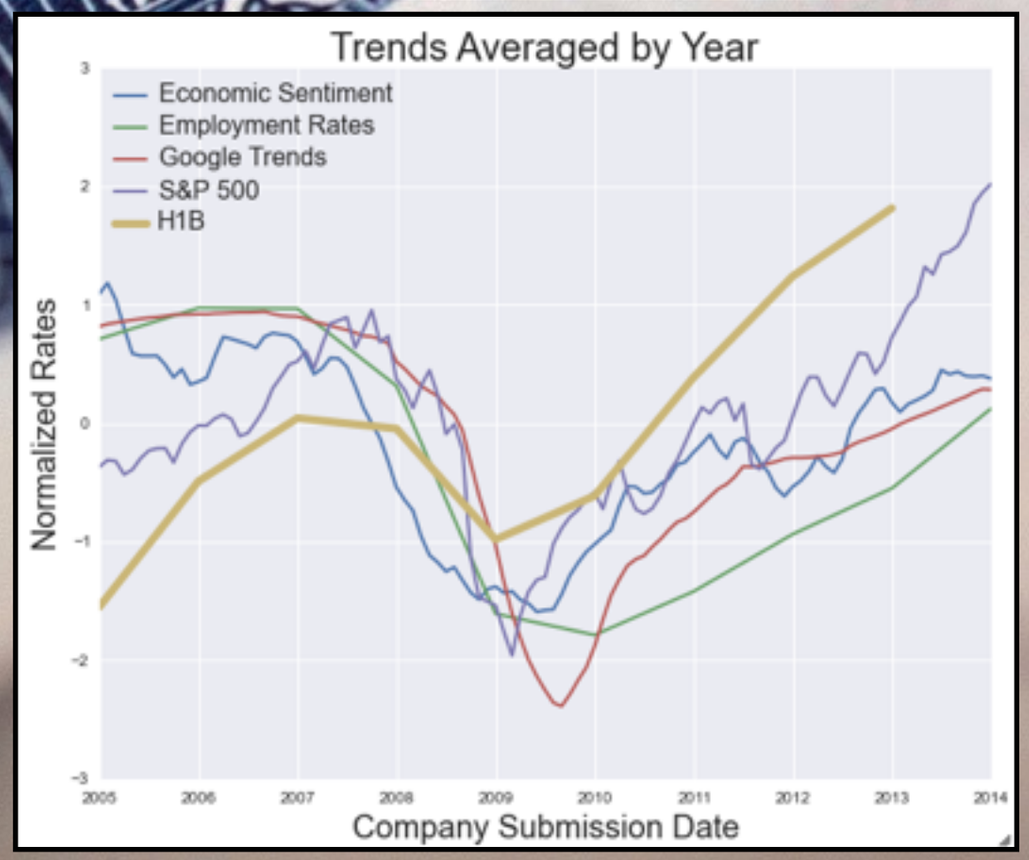
The Model

Features:

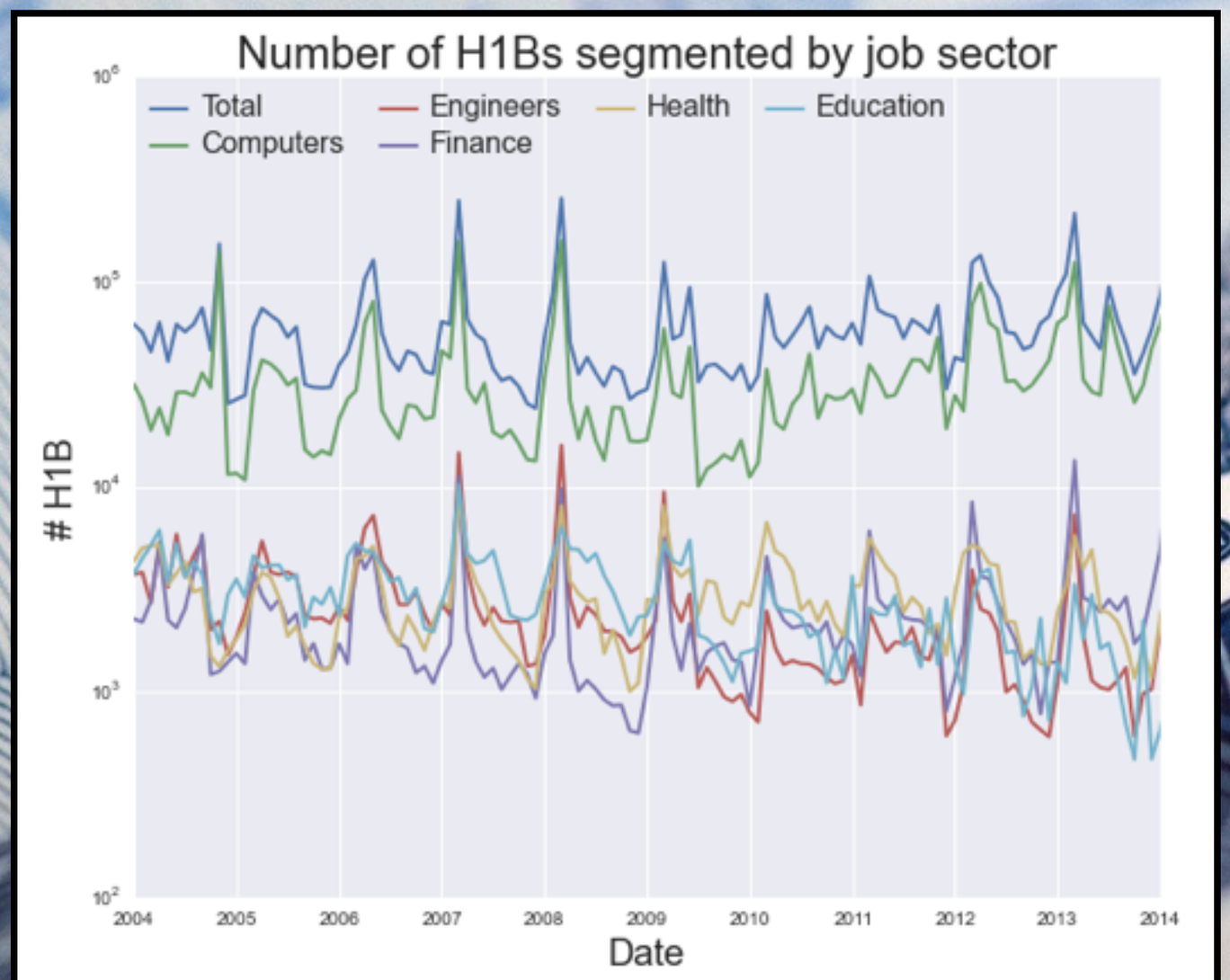
- S&P 500
- Unemployment Rate
- Sentiment of 17,000 NYTimes news articles on the US Economy
- Google Trends of negative economic terms

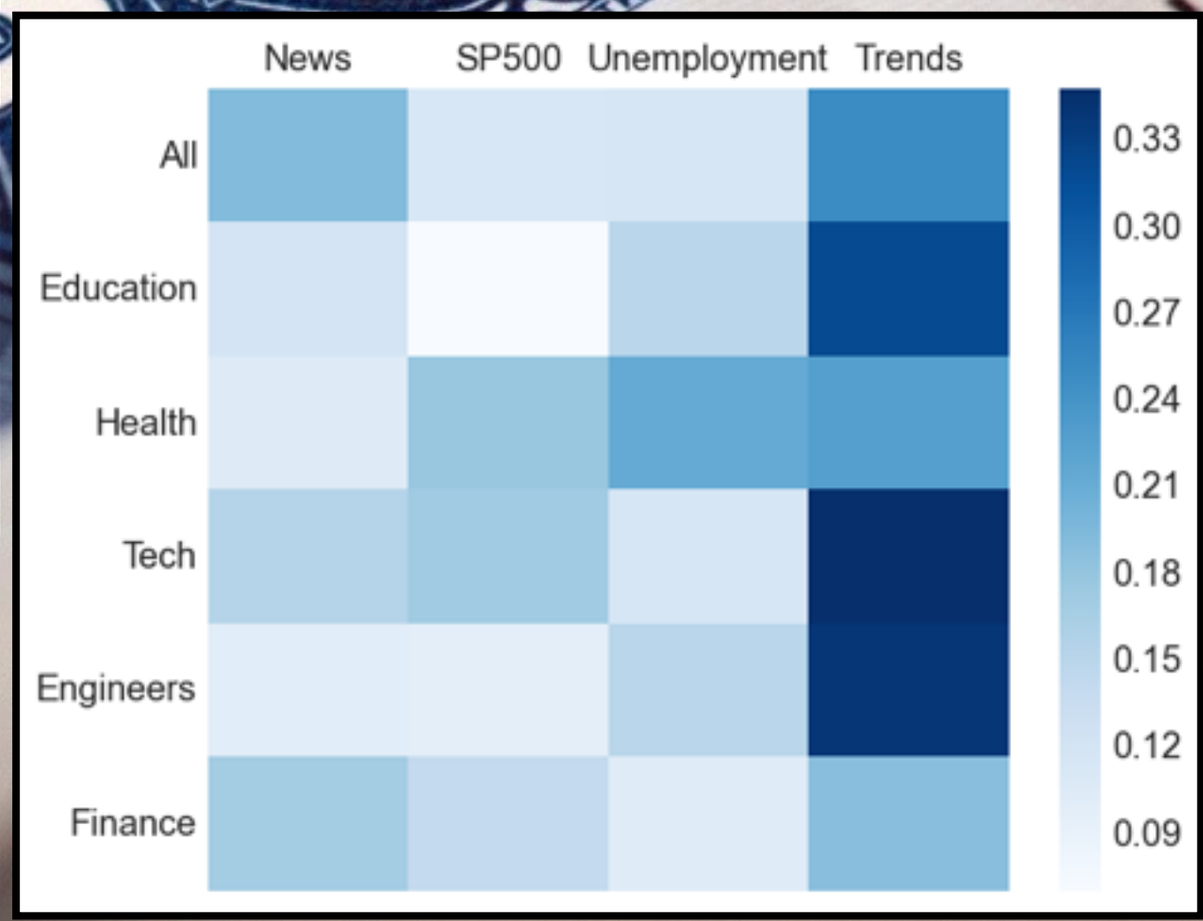
Algorithm:

- Fit a time shift to each economic feature
- Input time-shifted features to gradient boosted regression trees



Segmenting by Job Sector

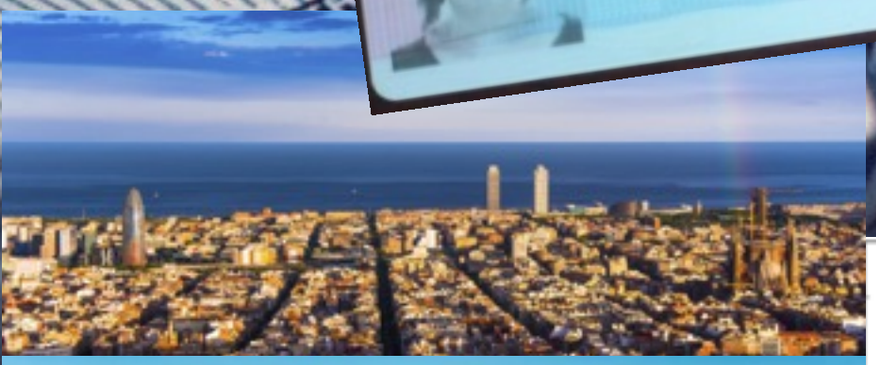


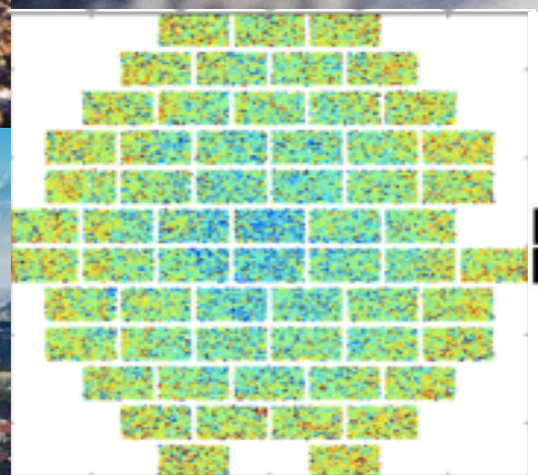


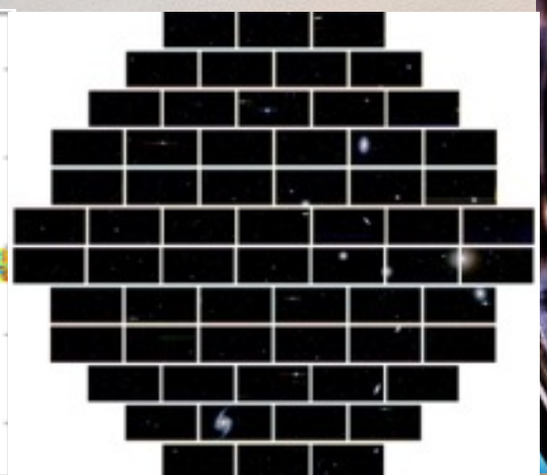
About me

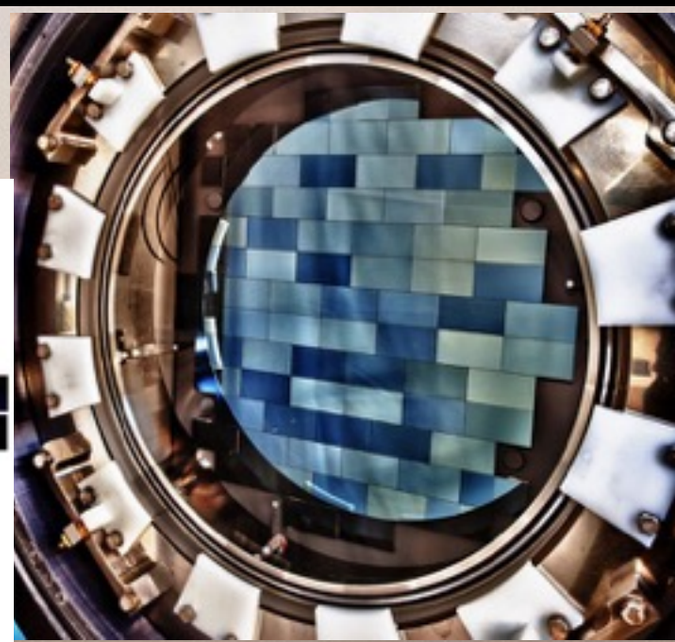
NEW YORK STATE
DRIVER LICENSE
AUFENTHALTSTITEL
VISA
ESPAÑA
PERMISO DE RESIDENCIA
ANNE HOLLISTER BAUER
RESIDENCIA Y TRABAJO
BARCELONA

LUX ET VERITAS
YALE



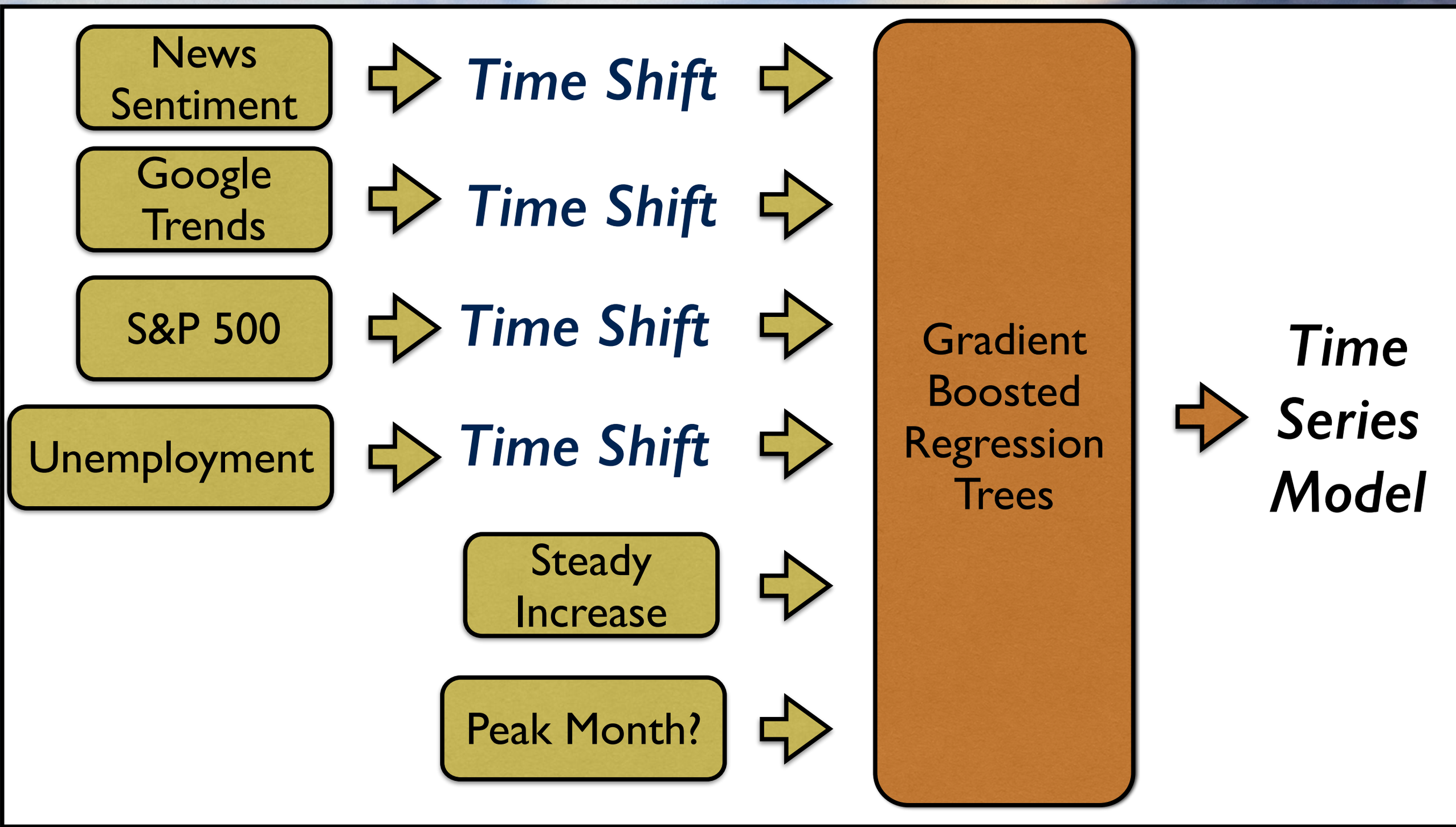




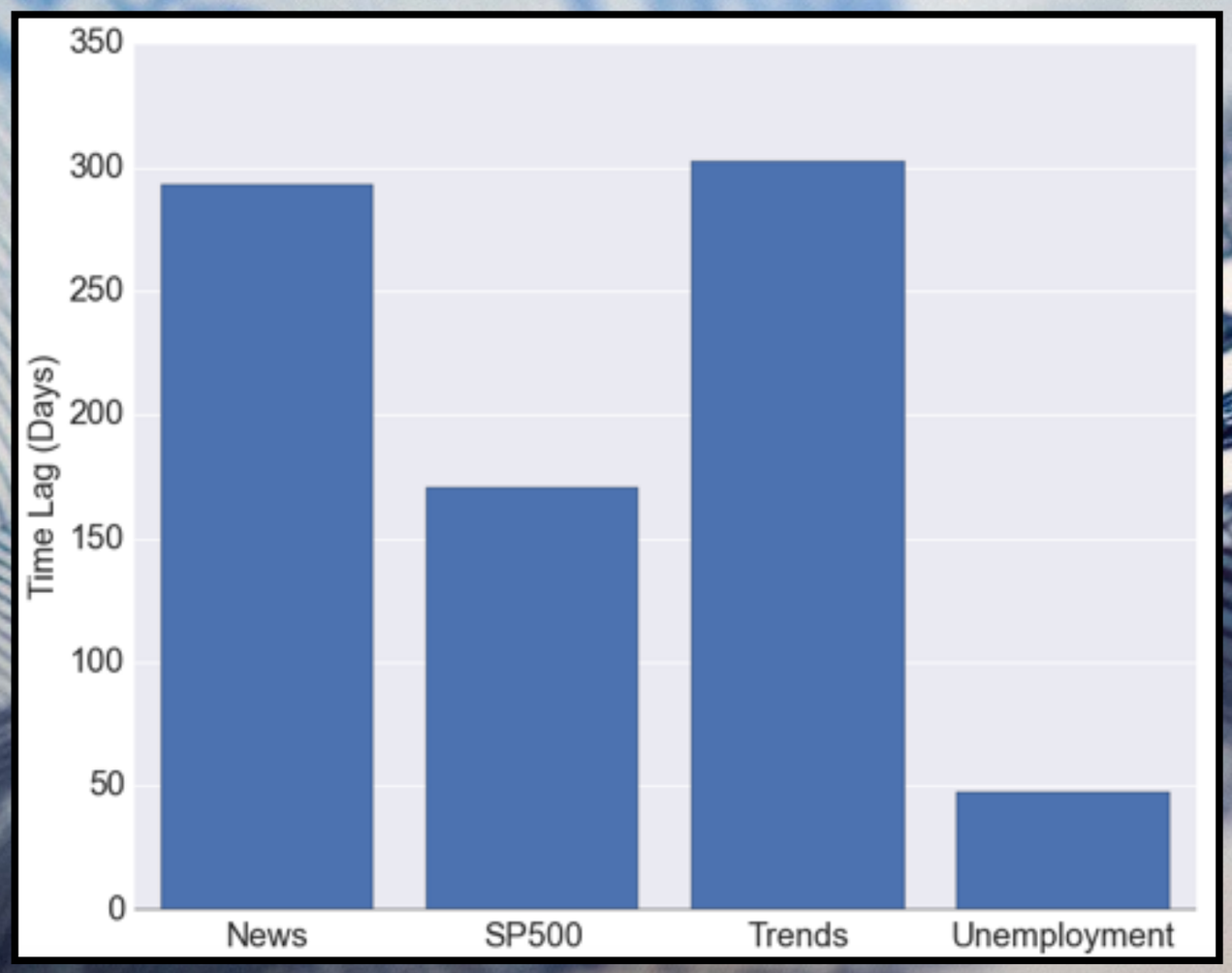


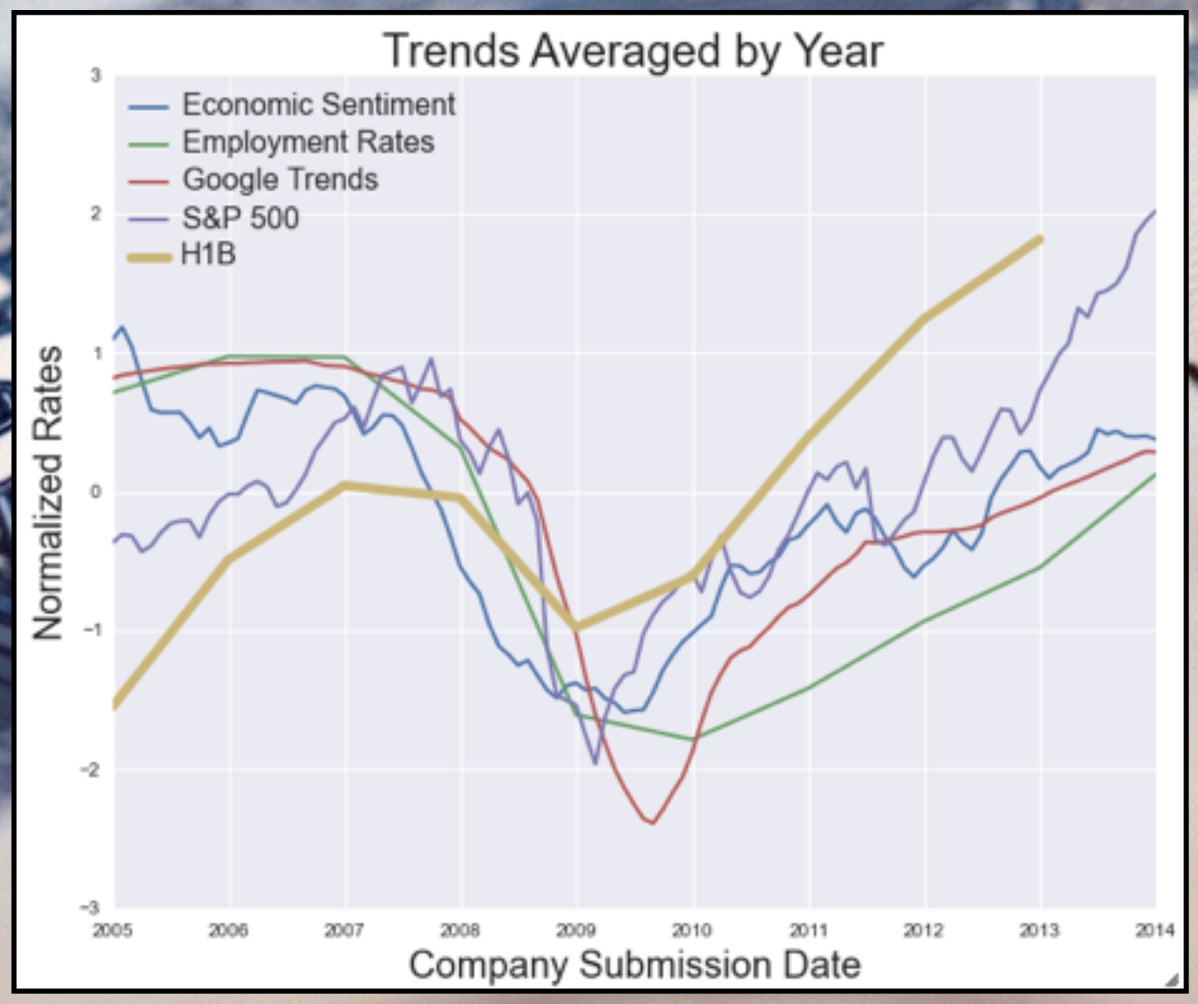
Thank you!

Algorithm


News Sentiment
Time Shift
Google Trends
Time Shift
S&P 500
Time Shift
Unemployment
Time Shift
Steady Increase
Peak Month?
Gradient Boosted Regression Trees
Time Series Model

Algorithm


350
300
250
200
150
100
50
0
Time Lag (Days)
News
SP500
Trends
Unemployment


Trends Averaged by Year
Economic Sentiment
Employment Rates
Google Trends
S&P 500
H1B
Normalized Rates
Company Submission Date
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014

Sentiment Analysis

- 17 000 NYTimes news articles on the US Economy
- Seed word lists manually curated from the most common vocabulary in the articles
- Sentiment score built from the path similarity between the seed words and the article words

Factory Output Fuels Growth in U.S.

By THE ASSOCIATED PRESS
Published: January 18, 2012

WASHINGTON (AP) — Factory production in the United States has surged 15 percent above its lows of two and a half years ago and is helping drive the economy's recovery.

Productivity Grew by 2.2% In 4th Quarter

Published: March 7, 2001

WASHINGTON, March 6— Productivity grew at a revised 2.2 percent during the fourth quarter, closing out the best year for worker efficiency in almost two decades, the government said today.

VISA
UNITED STATES OF AMERICA