SHANNON FITZSIMMONS-DOOLAN
TEXAS A&M CORPUS CHRISTI

CITATION

ABSTRACT
Recent scholarship suggests that social norms are becoming more permissive of prejudicial talk about immigrants in the United States (Crandall, Miller, & White, 2018). This is in keeping with trends observed internationally (e.g., Krzyżanowski, 2018; Vollmer & Karakayali, 2018). Past studies of discourse about immigration in the United States have identified a number of patterns — most notably those relating immigrants to threat (e.g., Santa Ana, 2002) — though some have found patterns framing immigration as beneficial (e.g., Strauss, 2012). This study explores discursive patterns about immigrant education in online comments from American newspapers. It focuses on change exhibited by exploring salient lexical and thematic patterns in 2016 comments relative to such patterns in 2009 comments. Using a corpus linguistics design, keyword, thematic, and other analytical techniques were applied to identify and describe the most prominent new patterns in the 2016 comments. Seven themes, through which immigration was framed negatively, emerged as new and salient in 2016. The article also includes discussion of cross-thematic patterns (e.g., a zero-sum framework) identified in the analysis.

KEYWORDS
applied linguistics, corpus linguistics, discourse analysis, media discourse, online comments, immigration, education

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DOI
10.18573/jcads.25

ORCID
—

ISSUE DOI
10.18573/jcads.v2i1

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Manuscript accepted 2019-06-20
1. Introduction

After several decades of relative inertia (Mazza, 2017), numerous recent events indicate that federal policy governing and discourses surrounding immigration to the United States are in a state of flux (Pierce et al., 2018). In addition, recent work in social psychology suggests that social norms in the United States are becoming more permissive of prejudicial talk about immigrants (Crandall et al., 2018). This is in keeping with trends observed internationally — especially in Europe (Krzyżanowski, 2018; Vollmer & Karakayali, 2018).

This shifting ground is taking place against the backdrop of a K-12 educational system in which more than 25% of US children have at least one immigrant parent (Migration Policy Institute, 2018). Thus, the education of students from immigrant families will have great economic, political and social consequences in the United States. Such education is affected by discourses about immigration which can (1) transform immigrant students into threatening, inferior entities (Santa Ana, 2002), (2) facilitate educational policies negatively targeting immigrants (Calavita, 1996) and (3) be internalized and brought into learning experiences by immigrant learners themselves (Dabach et al., 2017).

Media sources broadly and newspaper sources more particularly have been used in the study of immigration discourses because of their amplified access to the public (Santa Ana, 2002) and their ability to influence the opinions of readership (Gabrielatos & Baker, 2008) through agenda setting and priming mechanisms (Stewart, Pitts, & Osborne, 2011). Online reader comments published in major newspapers are influential because they deliver open-ended, vernacular opinion via the platform of substantial media sources, functioning as both a site of public deliberation (Ruiz et al., 2011) and a measure of public opinion to their readers (Soffer, 2019).

This study explores the fluctuating public perceptions and stances surrounding US immigration by investigating emerging patterns in one particular register — online newspaper reader comments — for the domain of immigrant education between 2009 and 2016. Using a mixed-method design grounded in corpus linguistics, this study identifies prominent themes introduced in the 2016 data among top keywords and describes the themes through deployment of those top keywords.
2. Demographic context and literature review

The patterns of actual immigration to the United States during the time of the study are important context for the interpretation of the reader comments. Data presented in Table 1 reveal a complicated picture of immigration patterns that are hard to distill into one narrative.

<table>
<thead>
<tr>
<th>Demographic characteristic</th>
<th>Timeframe</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of total immigration</td>
<td>2009–2016</td>
<td>steady</td>
</tr>
<tr>
<td>Percentage of immigrants Latin American</td>
<td>2009–2016</td>
<td>steady</td>
</tr>
<tr>
<td>Number of undocumented immigrants</td>
<td>2010–2016</td>
<td>-6.1%</td>
</tr>
<tr>
<td>Removals of non-citizens</td>
<td>2010–2016</td>
<td>fluctuation, no trend</td>
</tr>
<tr>
<td>Percentage immigrant of total population</td>
<td>2000–2016</td>
<td>+2.4%</td>
</tr>
<tr>
<td>Percentage residents speaking Spanish at home</td>
<td>2000–2016</td>
<td>+2.6%</td>
</tr>
<tr>
<td>Percentage school-aged children with at least one immigrant parent</td>
<td>2000–2017</td>
<td>+8%</td>
</tr>
<tr>
<td>Percentage immigrant school-aged children</td>
<td>2000–2017</td>
<td>-1.1%</td>
</tr>
</tbody>
</table>

Table 1: Salient immigration metrics in the US over the 21st century. Sources: *US Census Bureau, 2018; † Passel and Cohn, 2018; ‡ Baker, 2017; § Migration Policy Institute, 2018; †† Migration Policy Institute, 2019

Research focusing on discourses about immigration in the US using newspaper data has consistently found negative representations of immigrants. In his seminal study, Santa Ana (2002) examined Los Angeles Times articles published between 1992 and 1998. He investigated the deployment of metaphors in articles about California Proposition 187, claiming that “[metaphor] is the key element with which discourse constructs the social world” (p. 43) and found that IMMIGRATION AS DANGEROUS WATERS was the dominant metaphor while IMMIGRANTS AS ANIMALS and IMMIGRANTS AS CRIMINALS were also deployed. In an earlier discussion of Proposition 187, Calavita (1996) claimed that rhetoric surrounding the law connected anti-immigrant sentiment to a burden on taxpayers. Examining local Virginia newspaper articles, Stewart et al. (2011) found that articles on the topic of illegal immigration scored lower on lexically-based measures of optimism and communality than articles that merely mentioned the concept. They also found a pattern of one individual immigrant standing for all undocumented immigrants who in turn stood for all Latinos. Cabaniss and Cameron (2017) examined 156 front-page articles of the New York Times about immigration published 1892-1924. Using CDA, the authors found that 75% of the articles referred to immigrants as groups rather than individuals, nearly half of the articles (46.8%) presented immigrants in negative ways, figurative lan-
language presented immigrants as animals and immigrants as uncontrollable forces and there was a strong pattern of associating immigrants with disease.

Studies of US immigration discourse using vernacular data have identified both positive and negative stances towards immigrants. Marlow (2015) analyzed 1,512 comments made on newspaper and corporate websites about an ad showing the patriotic song “America the Beautiful” sung in multiple languages. Sorting comments into stance types (pro and con), she found that supportive comments outnumbered comments with an opposing stance towards the ad 1,030 to 469. Using interview data from 27 North Carolinians, national immigration surveys and media content, Strauss (2012) identified 24 conventional discourses about immigration. Findings included (1) economic-themed discourses such as “Too Many Immigrants” which focuses on the amount of immigrants indexed by lexical items such as flood and overrun (p. 140) and (2) discourses focused on legality and national security such as “Illegal Is Wrong” indexed by words such as law and broken (p. 155). Among the 24 discourses identified, many framed immigrants in positive ways (e.g., “Nation of Immigrants,” “Immigrants’ Work Ethic”).

Also using vernacular data, Dabach et al. (2017) played presidential debate clips to 26 high school students from immigrant families to assess how the students aligned with inclusionary and exclusionary immigration discourses. They found that these immigrant students evoked the theme of fairness to support both exclusionary and inclusionary discourses and identified youth as a category deserving of inclusion and criminals as a category deserving of exclusion. This finding is supported by Epenshade and Belanger (1998) who identified preferred statuses for “children versus adults,” “legal versus illegal immigrants”, “education and health benefits versus welfare benefits” and “citizens versus noncitizens” (p. 379) in US immigration public opinion data.

Though several different units of analysis are used across research on immigration discourse, many approaches rely on lexical items as the entry point to analysis, as does this study. Strauss (2012) applied conventional discourses, which have multiple layers of representation including mental schema linking concepts, linguistic chunks and lexical items. Stewart et al. (2011) used categorized lists of lexical items to index texts on five variable dimensions: certainty, optimism, activity, realism and commonality. In their exploration of the semantic scope of the terms refugee, asylum seeker and boat people in a corpus of Australian online comments, Morrissey and Schalley (2017) conducted a lexico-semantic analysis of the use of these lexical items, identifying the underlying models of immigration processes associated with each term in the data. Pérez-Paredes et al. (2017) used the most frequent collocates of the node word MIGRANT in administrative UK texts about immigration to identify priming patterns in the discourse. Finally, in an oft-cited study of 175,139 British newspaper articles about individuals translocating to the UK, Gabrielatos and Baker (2008) used keyword and collocation analysis as well as techniques of CDA to explore how REFUGEE, ASYLUM SEEKER,
IMMIGRANT and MIGRANT were defined and framed. They found that keywords could be grouped into categories such as provenance, number, economic problem, legality, crime and plight.

Keyword analysis, the primary technique used in this study, identifies salient lexical items across a corpus of texts by virtue of their unexpected frequency. The idea that strategically repeated lexical items can signal rich points in discourse about immigration is found across study types. In her description of conventional discourses, Strauss (2012) says, “keywords and stock phrases can be a tipoff, signaling conventional discourse” (p. 61). Furthermore, Ådel (2010) reports that metaphors, the unit of analysis in many studies of discourse about immigration, are increasingly identified empirically by keyword analysis.

In another study using keyword analysis of texts about immigration, Fitzsimmons-Doolan (2009) compared keywords identified in Arizona newspaper corpora focused on immigration to similar corpora focused on language policy. While primarily focused on the overlap among keyword lists differentiated by topic, qualitative analysis found that when the keywords immigrant, immigration and illegal were used in the language policy corpus, illegal was the most frequent collocate of immigrant/immigration, suggesting a strong perception of all immigration activities as unlawful.

In sum, the studies above found that discourses negatively framing immigrants by either dehumanization or association with negative economic situations were more common than positive discourses. Discourses asserting overwhelming numbers of immigrants and discourses criminalizing all immigrants were common across the studies surveyed. In addition, while the surveyed studies identified several linguistic devices working to sustain these discourses, lexical items were used across several analyses to identify patterns in immigration discourse. To that end, this study addresses the question, what are emerging discourse patterns in 2016 online newspaper comments about US immigrant education?

3. Methods

3.1. Data sets

This study explores patterns of discursive emergence in a data set of 2016 reader comments using a comparable set of comments from 2009 as a baseline. The 2009 corpus consists of 892 reader comments (145,652 words) published between 2009-03 and 2009-12. The 2016 corpus consists of 1,109 reader comments (51,878 words) published in 2016-02.

consistently grouped the WP and NYT together in a small cohort of US publications called “the US prestige press” based on their similarities in circulation, readership, aim, scope and rigor of work (e.g., Demont-Heinrich, 2008; Lacey et al., 1991; Stempal, 1961). Comment moderation policies for the two newspapers were matched in that (1) commenters need not have been subscribers, but needed to have registered with the newspaper and (2) comments were moderated according to a similar set of standards, but not edited. While the NYT pre-moderates their comments and the WP post-moderates, the WP comments were captured several months after posting, well after post-moderation would have occurred.

Each corpus is a single comment thread. The 2009 data come from one reader comment thread that references (1) an announcement of a debate topic: “the best ways to teach newcomers” to the United States by NYT editors, (2) seven opinion pieces by experts or public figures centered on models for instruction of language learners and (3) an article about a Washington DC metro area high school serving immigrant students who are acquiring English as a second language (Thompson, 2009) — all published as a cohesive set over four days in March of 2009. The 2016 data are also a full reader comment thread. The thread references a single article published in February 2016 about a Washington DC metro area high school serving immigrant students who are acquiring English as a second language (Brown, 2016).

To assess topical similarity in the prompting texts, each set of newspaper texts eliciting the corpora analyzed in this study (NYT2009, WP2016) was tagged using the USAS tagger within the Wmatrix corpus analysis tool (Rayson, 2008). After processing the newspaper text sets, the frequency of semantic tags were compared to assess semantic and thematic similarity; eight of the ten most frequent semantic tags for each set were found to overlap (i.e., grammatical bin, pronouns, education in general, unmatched, moving coming and going, existing, geographical names, personal names and speech acts) and accounted for 57.08% of words in the 2009 prompt texts and 58.68% of the words in the 2016 prompt text. Furthermore, 26 of the 30 most frequent semantic tags for each set overlapped, accounting for 73.23% of words in the 2009 prompt texts and 78.47% of the words in the 2016 prompt text. Thus, the two sets of textual prompts which elicited the comment data can be regarded as comparable in terms of semantic topic.

A Proquest search specifying the subjects used to code both focal articles eliciting the reader comments (“schools,” “immigration policy,” and “alien”) identified no other articles that matched on both newspaper and article content in the 21st century. Therefore, these two datasets are the closest available match for this research question in either the WP or NYT. The exact time span explored in this study is an artifact of the publication dates of the prompting texts.

The reference corpus for the study (82,340 words) consists of reader comments from articles in the NYT and WP published 2009–2016 (distributed evenly across the years and
newspapers). The corpus includes comments on a range of US domestic policy issues (i.e., the economy, jobs, racism, global warming, health care, Medicare, abortion, gun control and terrorism) distributed evenly across issues. That is, the reference corpus represents online newspaper comments about major domestic policy issues in the WP and NYT from 2009 to 2016.

3.2. **Keyword design**

Within language studies the term *keyword* has been used to refer to both cultural and statistical concepts (Ädel, 2010; Culpeper & Demmen, 2015; Fitzsimmons-Doolan, 2009; O’Halloran, 2010). Keywords, in both senses, are posited to reveal underlying properties across a set of texts (Stubbs, 2010). In the case of cultural keywords, Williams (1976) claims that they reveal identifying cultural values. In the case of statistical keywords, they reveal identifying concepts, stylistic features and/or ideologies across a body of texts in relation to a reference body of texts (Gabrielatos, 2018; Kempannen, 2004; Stubbs, 2010).

Importantly, the interpretation of the nature of the salience identified by statistical keywords always depends on the texts that comprise the reference corpus (Culpepper and Demmen, 2015; O’Halloran, 2010). Statistical keywords (hereby referred to as keywords) are lexical items that are unusually frequent in a corpus of interest when compared to another, reference corpus (Stubbs, 2010). Thus, the keywords will represent the ways that the corpus of interest is different than the reference corpus. For example, if the two corpora represent the same genre, but different topics, then the keywords will represent the topical differences in the corpus of interest. If the two corpora are about the same topic, but in different registers, then the keywords will represent the ways in which the registers differ in presentation of the topic in the corpus of interest.

In this study, a keyword list for each data set (NYT2009, WP2016) relative to the reference corpus was generated in order to identify the keywords in each corpus particular to their year and the topic of immigrant education while controlling for words particular to the register of online newspaper comments about US domestic policy issues from 2009–2016 in the WP and NYT more generally. Although the editorial style of comment sections varies across newspapers, which can affect qualitative aspects of comments (Rowe, 2015), this potential source of variability is addressed in this study by the content of the reference corpus. The keyword lists from each point in time were then used as the basis for further analysis in order to identify patterns of discursive emergence in the 2016 data.

3.3. **Analysis**

Each of the two immigrant education comment corpora (NYT2009, WP2016) was compared to the reference corpus to generate a list of keywords using WordSmith corpus analysis software (Scott, 2016) ($\alpha < .005$, log ratio $> 1.5$). To further refine the set of keywords, the lists were sorted by log ratio, which is a measure of effect size (Gabrielatos,
2018). The first distinct break in the log ratio scores of the 2009 data occurred between 135.01 and 9.08 and in the 2016 data it occurred between log ratio scores of 135.64 and 7.04. The keywords from each list with the highest log ratio scores (≥ 135.01, 2009; ≥ 135.64, 2016) that were also statistically significant — top keywords — were extracted for further analysis.

The researcher qualitatively examined how each top keyword was used in context within each corpus. The researcher then coded all of the top keywords (both 2009 and 2016) inductively using the contextual analysis to identify themes (Gabrielatos & Baker, 2008; McEnery, 2016). For example, steal was given the thematic code crime and importing was given the thematic codes economy/finances and problem. Next, the researcher identified seven themes that were both new in 2016 and were evoked by top keywords that were also new in 2016. Use-in-context of all top keywords (n = 29) coded as at least one of the seven themes were then investigated qualitatively using concordances and full textual context.

4. Results and discussion

In the 2009 corpus, 150 top keywords were identified (p < .005; log ratio ≥ 135.01) and 94 top keywords were identified in the 2016 corpus (p < .005; log ratio ≥ 135.64). (See the Supplemental File for the top keywords and their log ratio scores from each corpus.) A comparison of the two lists reveals that they are primarily non-overlapping. That is, 77% of the top keywords in the 2009 list did not overlap with the 2016 list and 64% of the words in the 2016 list did not overlap with the 2009 list. While some top keywords do overlap across the corpora (e.g., Spanish, bilingual, ESL, taught), this analysis points to sizable change in these register samples during this period of time.

The qualitative analysis using the quantitative results identified seven new themes in the 2016 data, all broadly tied to immigration. Table 2 presents these themes (economy/finances, amount/disaster, law, crime, problem, animals and politics) along with the 29 top keywords from 2016 that evoked these themes. None of these 2016 top keywords were keywords in the 2009 data and, furthermore, 18 of these 2016 top keywords (62%) were not used at all in the 2009 corpus.

The lack of keyness and, in the majority of cases, even presence of the focal 2016 top keywords in the 2009 corpus confirms that the design of the study did identify salient differences between the 2009 and 2016 data sets even though the corpora were not directly compared. What follows are the results of qualitative analysis of 2016 top keywords evoking the seven emerging themes.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Top keyword</th>
<th>Keyness (log ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economy/Finances</strong></td>
<td>importing</td>
<td>136.78</td>
</tr>
<tr>
<td></td>
<td>freebies</td>
<td>136.49</td>
</tr>
<tr>
<td></td>
<td>feed</td>
<td>136.49</td>
</tr>
<tr>
<td></td>
<td>payers</td>
<td>136.32</td>
</tr>
<tr>
<td></td>
<td>handouts</td>
<td>135.92</td>
</tr>
<tr>
<td></td>
<td>taxpaying</td>
<td>135.64</td>
</tr>
<tr>
<td></td>
<td>budgets</td>
<td>135.64</td>
</tr>
<tr>
<td><strong>Amount/Disaster</strong></td>
<td>flood</td>
<td>137.13</td>
</tr>
<tr>
<td></td>
<td>surge</td>
<td>135.64</td>
</tr>
<tr>
<td></td>
<td>overrun</td>
<td>135.64</td>
</tr>
<tr>
<td></td>
<td>infinite</td>
<td>135.64</td>
</tr>
<tr>
<td></td>
<td>flooded</td>
<td>135.64</td>
</tr>
<tr>
<td><strong>Law</strong></td>
<td>Plyer</td>
<td>136.90</td>
</tr>
<tr>
<td></td>
<td>Doe</td>
<td>136.90</td>
</tr>
<tr>
<td></td>
<td>deportation</td>
<td>136.32</td>
</tr>
<tr>
<td></td>
<td>enforcing</td>
<td>135.64</td>
</tr>
<tr>
<td><strong>Crime</strong></td>
<td>steal</td>
<td>136.32</td>
</tr>
<tr>
<td></td>
<td>incarcerate</td>
<td>136.32</td>
</tr>
<tr>
<td></td>
<td>broke</td>
<td>136.13</td>
</tr>
<tr>
<td></td>
<td>sneak</td>
<td>135.64</td>
</tr>
<tr>
<td></td>
<td>incarcerating</td>
<td>135.64</td>
</tr>
<tr>
<td><strong>Problem</strong></td>
<td>importing</td>
<td>136.78</td>
</tr>
<tr>
<td></td>
<td>fools</td>
<td>136.32</td>
</tr>
<tr>
<td></td>
<td>populated</td>
<td>135.90</td>
</tr>
<tr>
<td></td>
<td>handouts</td>
<td>135.92</td>
</tr>
<tr>
<td></td>
<td>dumbed</td>
<td>135.90</td>
</tr>
<tr>
<td><strong>Animals</strong></td>
<td>feed</td>
<td>136.49</td>
</tr>
<tr>
<td></td>
<td>gophers</td>
<td>136.13</td>
</tr>
<tr>
<td></td>
<td>herbs</td>
<td>135.64</td>
</tr>
<tr>
<td><strong>Politics</strong></td>
<td>Sanders</td>
<td>136.32</td>
</tr>
<tr>
<td></td>
<td>Dem</td>
<td>135.64</td>
</tr>
<tr>
<td></td>
<td>Bernie</td>
<td>135.64</td>
</tr>
</tbody>
</table>

*Table 2: Emerging themes and associated top keywords by log ratio in the 2016 data*
4.1. Economy/finances

The use of the top keywords importing, freebies, feed, payers, handouts, tax-paying, and budgets were all categorized as referring to economic or financial concerns. Based on analysis of these top keywords in context, the texts in which they were deployed were overwhelmingly anti-immigration in stance and also evoked other focal themes (i.e., problem, animals, and politics). That is, it was common for this theme to be deployed alongside others. In particular, importing and handouts evoked both the problem and economy/finances themes. (Italicized terms in the following exemplars indicate lexical items that directly relate to the theme and its interpretation, including but not limited to top keywords.)

(1) *Importing* third world poverty and illiteracy into a first world society is only going to produce a substantially larger dependent underclass. And let's face reality here. We're not even importing it. They are importing themselves and then having "American" children as a means of trying to prolong their illegal stays. In the process the American Taxpayer is on the hook for billions in additional educational costs which by and large you might as well flush down a toilet...

(2) "to access services..." That's putting a nice spin on getting government handouts. Our schools are pitiful as they are. This will not be helping.

In Excerpts 1 and 2 the commenters use the top keywords importing and handouts to not only associate immigrant students with economic concepts (i.e., immigrants as imports, education as valuable benefit), but also to problematize immigrant students at the essential level (i.e., associations with poverty, illiteracy, pitiful schools).

The use of payers, taxpaying, budgets, feed, and freebies evoke unearned financial benefits for undocumented immigrants at the financial cost to American citizens, who are presented as taxpayers.

(3) so why does America have to babysit this generation of immigrants with handouts, we are being taken advantage of and our Government is really the cause of the flow of illegals by offering them all the freebies paid for by the American Taxpayer, which is depleting the quality of services that is owed to the taxpayer.

(4) Flood entire communities with unending hordes, while the taxpaying population supporting it all dwindles and watches their children get pushed to the back of the line. Civilization was fun while it lasted.

(5) If the school district's budget is fixed and it has a 10% increase in enrollment due to "immigrant" (read, illegals), who must have special programs like bilingual education, tutoring, etc., what gets cut for the rest of students?

In both Excerpts 3 and 5 the commenters associate all immigrants with illegality. In all three excerpts, the financial benefits flowing to immigrant students through the educa-
tional system mean that something is getting taken from non-immigrants, presented as taxpayers (Excerpts 3–4). This framing of immigrant education as a zero-sum game is pervasive through the use of 2016 top keywords in this analysis as is the conflation of the categories of immigrant and undocumented immigrant. In fact, illegal is the most frequent collocate of both immigrant(s) and immigration in the 2016 data. In the 2009 data, illegal is the most common collocate of immigration, but is only the 10th most common collocate of immigrant(s).

This analysis supports previous identification of the economic theme (Calavita, 1996; Gabrielatos & Baker, 2008; Strauss, 2012). In particular, the data in this study shows evidence of the semantic shift from citizen to taxpayer (e.g., Excerpts 1, 3) described in Calavita (1996). Though Strauss (2012) found both positive and negative conventional discourses about immigrants/immigration and economic concerns, in this data, such comments took a negative stance.

4.2. Amount/disaster

The top keywords in this category (flood, flooded, surge, overrun, infinite) refer to increasing amounts of an entity, usually of immigrants and often evoke disaster. The texts using these words were also overwhelmingly anti-immigrant in stance. Flood (7/14 cases) and surge (5/5 cases) are often used in conjunction with historical or quantitative information and deployed with certainty.

(6) The flood started after 1982...In June 1982, the Supreme Court issued Plyler v. Doe, a (5-4) landmark disaster decision holding that states cannot constitutionally deny students a free public education on account of their immigration status. This ruling by the courts Court’s liberal wing has destroyed my country. ...

(7) When my daughters were in school in Houston, we had a surge of illegal alien children into our district. They had to attend classes in pods, only had access to textbooks on even/odd days, were in classes with 30+ students, and saw a reduction in extra-curricular activities. We had another surge in 2014 when thousands of illegal minors flooded across the Rio Grande. One school district had to hire teachers in 27 dialects: that’s how crazy things are down here.

(8) When Will [sic] Americans start protesting against the illegal invasion and Obama illegal immigration amnesty policy allowing the borders to surge?

As in Excerpts 6 and 8, comments using flood and surge often tend to tie perceived increases in immigration to political decisions or actors. Use of flooded also employs the metaphor of disaster to refer to increases in negative entities.

(9) Additionally, our schools are being flooded with drugs.

(10) Of course America’s schools are flooded with aliens.
Like flood and surge, the use of overrun refers to increases in immigrants. In addition, it is often deployed with language evoking the problem theme.

(11) Also, just an observation: There is a reason Texas schools rank somewhere around 43rd out the 50 states. Here in Texas our schools are overrun with millions of children of illegal migrants. And while it is no fault of those kids, all US citizens should envision THEIR children being denied up to date classroom equipment, computers, facilities, instruction, etc... because that money is used to educate the people sent Northward daily from that worthless, corrupt, cartel-ravaged cesspool called Mexico.

In Excerpt 11, the commenter associates immigrant students whose numbers are increasing ("overrun with millions") with problematic attributes (e.g., “worthless,” “corrupt”).

Finally, infinite is not used to describe the amount of immigrant students, rather it is a modifier used to describe resources. In particular, commenters use infinite to make a claim that resources for education are not infinite.

(12) The progressive left fringe truly believes that public resources are infinite. The rest of us know that is simply wrong. The "right" to public education is, pure and simple, another claim on limited public resources. Unfortunately, there seems to be a limitless number of economic and political refugees making claims.

Excerpt 12 shows this pattern. The commenter claims that others, Americans identifying with the far left, perceive resources as infinite, while a majority, “the rest of us”, rightly understand resources to be limited. The use of infinite and the other amount/disaster top keywords in this corpus supports the pattern noted earlier of constructing education for immigrant children as a zero-sum game.

This theme is one of the most widely documented across the previous literature (Catalano & Fielder, 2018; Gabrielatos & Baker, 2008; Santa Ana, 2002; Strauss, 2012). It is the most prevalent theme identified by both Santa Ana (2002) as a metaphor (i.e., IMMIGRATION AS DANGEROUS WATERS) and Strauss (2012) (i.e., “Too Many Immigrants”). Furthermore, Catalano and Fielder (2018) suggest that use of terms such as surge employ the discursive strategy of proximization which conveys a sense of threat to the addressee. In this data, the threat is to both economic resources (Excerpts 7, 11, 12) and to safety (Excerpts, 9, 10, 11).

4.3. Law

As with the reader comments in the previous categories, comments using the top keywords Plyler, Doe, deportation and enforcing almost exclusively presented anti-immigrant sentiments to discuss laws or frameworks of governance. Plyler and Doe were used together to reference the US Supreme Court case prohibiting public K-12 schools from inhibiting access to education based on immigration status.
(13) Agree totally. I recall being stunned by Plyler v. Doe when in 1982, the U.S. Supreme court, in all its infinite elite sheltered tree lined cul-de-sac wisdom more or less mandated free education for illegal immigrants.

The comments referencing the court case had negative evaluations of the outcome. The politics theme was often evoked in comments including deportation (3/8 cases) or enforcing (3/5 cases), alongside the legal theme.

(14) NO amnesty. NO work permits. NO nothing but deportation. Pledge to vote for the candidate who will deport all illegals and severely reduce legal immigration.

(15) The Obama administration has repeatedly shown it to be a rogue administration when it comes to enforcing US laws. They only enforce those laws they want, and that IS NOT their job description. Obama's legacy will be a Trump presidency...

(16) Just start with the law for a second here… at first there is a law that says these people cannot just cross our border and stay, pretty crystal clear. The penalty for doing so is deportation. Simple really. At some point we stopped enforcing this law… I will vote for Trump just on this issue. I don’t care what else he does.

Comments using deportation or enforcing often assume that immigrant students are breaking laws (11/13 cases), following the pattern of conflating the categories of migrant and undocumented immigrant found across the data. The comments then call for enforcing the law — often through deportation. Somewhere in this subset of comments, there is often a reference to either a perception of President Obama not enforcing laws and/or then presidential candidate Donald Trump being a preferred option based on a perception of his willingness to enforce laws.

This analysis is confirmed by Dabach et al. (2017), Gabrielatos and Baker (2008) and Strauss (2012), who all found ways in which legal constructs featured in discourse about immigration. What is marked in this analysis in comparison to previous work is the connection to enforcement and further connection to political choices.

4.4. Crime

Related to law, crime comments focused on characterizing undocumented immigrants as criminals. The top keywords in this category were steal, broke, sneak, incarcerate and incarcerating. Steal, broke and sneak were used in comments with anti-immigrant stances, while incarcerate and incarcerating were the only top keywords in the analysis used in some comments that advocated for immigrant education.

(17) The Supreme Court needs to revisit its decision that offered free education to anyone who could sneak over our border. The decision itself has offered a prize to any foreign parent who is willing to violate our immigration laws.
I do not owe people that snuck into this country and broke our laws anything whatsoever. I keep hearing that we cannot deport 12 million people from this country. The hell we can’t, one at a time baby!!!!

I hope every American who reads this article vote for Trump so that we can begin deporting all illegal aliens who steal from us daily. We can take back our jobs, schools, hospitals, roads, etc.

Like it or not illegal aliens steal the education from American children.

Excerpts 17 and 18 show how use of sneak and broke first tend to essentialize all immigrant students as undocumented and then attribute flaws to their character. The uses of steal in Excerpts 19 and 20 explicitly claim that immigrant students’ access to education takes away from the education of non-immigrant students.

The uses of incarcerate and incarcerating were mostly deployed in a back and forth among a handful of comments attempting to establish the cost of incarcerating an immigrant child versus the cost of educating an immigrant child.

So, basically to clarify based on the best numbers we have all come up with it costs about $400 per day to incarcerate a child, and about $60, to educate a child. Some people think it is better to be kind, while putting a lower burden on tax payers. Other folks feel it is more important to consider children, to be like dangerous criminals and incarcerate them even if it costs 600% more to do so . . . . Does that sum it up so far?

You can look it up, why not just go to google. On average it $18.6 million or $62 per day to incarcerate 300,000 illegal immigrants. So there you go $62 per day which I guarantee is less than the cost of putting them in school, providing social services, providing medical care, buying tickets to their destination placing them in new homes, etc. etc.

Just on a point of clarification. Incarcerating a child costs about $400 per day. Educating a child costs $27 per day.

The uses of incarcerate and incarcerating marked a site of negotiation where commenters used the economy/finances theme to justify or resist the criminalization of youth. This is particularly interesting because these are the only top keywords whose use was associated with comments advocating for immigrants in the analysis.

The 2016 data evoking crime draws on a robust previously identified discourse history (i.e., Catalano & Fielder, 2018; Dabach et al., 2017; Gabrielatos & Baker, 2008; Santa Ana, 2002; Stewart et al., 2011; and Strauss, 2012) to negatively frame all immigrants. The comments focused on incarceration costs in this data (Excerpts 21, 22, 23) seem to be a place where the identities of criminal (unprivileged status) and child (privileged status) were being negotiated. In this negotiation, some readers argued indirectly that criminal status (as defined by method of entry) superseded age status.
(Excerpt 22), while others argued indirectly that age status superseded criminal status (Excerpts 21, 23) — though both arguments relied explicitly on economy/finances argumentation.

4.5. Problem

The top keywords categorized in the problem theme are importing, handouts, populated, dumbed and fools. Overall, use of these words appears in comments problematizing either immigrants (importing, handouts, populated, dumbed) or liberal immigrant supporters (fools). This more generalized theme was found less explicitly in previous work (Cabaniss & Cameron, 2017; Stewart et al., 2011; Strauss, 2012). The samples below are representative of patterns found in the deployment of these top keywords.

(24) Exactly how does America benefit the Third World by becoming the Third World? by importing its poverty and failure?

(25) Let’s be honest, THEY ARE NOT all fleeing war and oppression, they come seeking taxpayer funded handouts and bring their bad cultural habits with them.

(26) So we can become as poverty stricken, over populated, living in filth like countries these immigrants are coming from? What is wrong with you? It doesn’t make us Nazis if we don’t want to take in the entire world.

(27) How much are classes slowed down and dumbed down to cater to those who can’t understand? What about the large number of gang member that are coming in and creating havoc in our communities?

In Excerpt 24 a commenter uses an economic/financial metaphor to characterize immigrants negatively (i.e., poverty, failure). In Excerpt 25, handout, another economic/financial concept is used to argue that Americans are exchanging financial resources for negative immigrant traits (bad cultural habits). In Excerpt 26, overpopulated is listed with negative traits the commenters associate with immigrants (poverty stricken, filth) and is subtly dehumanizing in this context. Finally, in Excerpt 27 dumbed is attributed to curriculum for immigrant students. Use of dumbed was usually followed by a negative characterization of immigrant students. In this case immigrant students are associated with gang members wreaking havoc. Finally, fools was used to reference liberal politicians or voters who were thought to be pro-immigrant education.

(28) I hope the idiots who voted for this President appreciate the fact that their children will receive even less education than the already dumbed down system currently offers. I hope these fools are the ones who contract the diseases which were essentially eradicated in our population.

The text in Excerpt 28 uses several top keywords to problematize immigrant students. According to the commenter, immigrant students carry diseases, the curriculum for all students will be dumbed down because of such students and supporters of then President.
Obama are characterized as idiots and fools. This comment returns to the zero-sum assumption so prominent in this data, suggesting that curricular modifications are a tool by which the exchange of resources happens — i.e., that in order to access education immigrant students require a simplified curriculum which takes away from the education of non-immigrant students.

4.6. Animals

The top keywords feed, gophers and herbs pointed towards an exchange among commenters in which immigrants were likened to animals. Though this theme was identified as very salient in previous studies (Catalano & Fielder, 2018; Santa Ana, 2002) and was identified in this study, it was very isolated in expression in this corpus to the following exchange.

(29) If your garden is full of gophers, you have no garden. So, with fencing and an aggressive campaign to remove the gophers, you are able to maintain the garden. I feel sorry for the gophers: we gas them, trap them, neighbors feed them to the dogs. But you probably are starting to understand the metaphor

(30) I had a gopher in my garden once, I looked on the internet, planted some herbs, then I never had gophers again. Every problem has a solution, and a solution isn’t more effective because it is brutal.

(31) interesting contrary, gophers as people you sound like Herr Eichman proposing the final solution, gas them, trap them, and feed them to the dogs. why don’t you go back to ISIS you maggot

(32) I get gophers in my yard occasionally... I shoot them. Sit out there with a can of Bud and a rifle... when they poke their head up, I blow it off. I also have 2 enormous cats who love to sit by a gopher hole all day, it's amazing the patience they have, it has to be a terrible way to go for the gopher... My stupid dog, tries to dig them up... never works. The gophers like my dog, are terrified of my cats and never know that I am there.

Excerpts 29, 30 and 32 use the top keywords to characterize immigrants as animals that need to be removed from a territory. In Excerpts 29 and 32, the commenters advocate violence and terror as approaches to removing the gophers. In Excerpt 30, the commenter resists the idea of violence and terror as brutal, but embraces the animals metaphor and the goal of removal. In Excerpt 31, the commenter strongly resists the animals metaphor, associating its deployment to Nazism and then calling the author of Excerpt 29 a terrorist and a highly stigmatized insect — thereby dehumanizing the author of Excerpt 29.

4.7. Politics

The three top keywords coded as political were Bernie, Sanders and Dem. Comments using these words focused on arguing that increasing the immigrant population in the United States was politically expedient for the Democratic Party generally with particular
reference to then presidential candidate Bernie Sanders and then President Barack Obama.

(33) Trouble funding illegal immigrants/"refugees"? Just tax the Bernie Sanders, open-borders, leftists by their proposed 90% rate to pay the way for yet another group to mooch off of the government (productive class) gravy train

(34) WaPo, these aren’t “immigrants,” they’re illegal aliens - but to the Left - they’re VOTES - which the degenerate Dem Party can’t capture legitimately - hence Obama’s "browning of America." This Obama Reich is a stain on the fabric of America.

Comments deploying Bernie (3/5 cases) or Sanders (5/8 cases) often suggested that the candidate was planning to increase taxes (to 90% was a repeated number) to pay for the cost of supporting such individuals financially (Excerpt 33). Comments deploying Dem (3/5 cases) often suggested that Democrats encourage immigration in order to gain the votes of immigrants in the future (Excerpt 34). Within both types of comments, the assumption that all immigrants are illegal is explicitly repeated.

In addition to the comments using these terms, the political theme was also evoked in many of the comments across the other six themes as well — especially the economy/finances and amount/disaster themes. There were two primary patterns in these cases. First, as shown earlier, then President Obama was linked to an increase in immigration rates generally (Excerpt 8) and a deliberate policy of non-enforcement of immigration law (Excerpts 15, 34). Though present across the comments, Obama was not a keyword in the 2016 corpus. This was likely because the reference corpus spanned 2009–2016, years of the Obama presidency and covered high-profile domestic policy issues. Therefore, while frequent in the 2016 corpus (n = 79), use of Obama was not unusually frequent when compared to the reference corpus (n = 110). The second notable politics pattern across themes was the use of Trump, which was a keyword in the 2016 corpus (log ratio 2.78).

(35) TRUMP, BUILD THAT WALL AND THEN SEND ALL THOSE WHO BROKE OUR LAWS, AND CONTINUE TO STEAL OUR MONEY, BACK!

In conjunction with the top keywords and the emerging themes in 2016, the use of Trump tended to be connected to a claim of immigrants breaking laws (Excerpts 16, 19, 35), a claim of immigrants taking resources (Excerpts 19, 35) and a declaration in favor of then presidential candidate Donald Trump (Excerpts 16, 19, 35). Interestingly, a political theme was not identified in any of the previous literature surveyed for this study. However, the presence of this theme in the 2016 data may point to the effectiveness of Donald Trump’s presidential campaign, for which immigration was a central issue from the outset (Newman et al., 2018).
5. Conclusion

This corpus-driven, keyword investigation of emerging patterns in 2016 reader comments about US immigrant education reveals seven new themes not present in the 2009 data. Grossly, much change was observed, focused on immigration rather than education and almost all adopting a negative stance towards immigrants. Though the themes economy/finances, amount/disaster, law, crime, problem and animals had all been identified in the prior literature, politics was not. The introduction of the politics theme or the nature of this register — online comments — or a combination of both of these factors may have played a role in the overwhelmingly negative focus of the emerging trends.

In addition to the local patterns described in the previous section, qualitative investigation of patterns related to the use of top keywords associated with emerging themes found two global patterns: (1) a consistent pattern of metonymy in which all immigrants are equated to illegal immigrants; and (2) an underlying assumption across arguments that immigration policy in the United States is a zero-sum game. The term “illegal immigrant” operates as code to implicitly indicate threat tied to an ethnic/racial identity (Cabaniss & Cameron, 2017; Stewart et al., 2011). This study robustly confirms the presence of this metonymic pattern in the 2016 emerging themes data. Furthermore, the zero-sum game assumption is predicated on an Us vs Them dichotomy which is also found throughout the data. Though Stewart et al. (2011) claimed that this dichotomy is a hallmark of immigration discourse, Strauss (2012) identified several conventional discourses that were not predicated on a zero-sum assumption such as “Jobs Americans Don’t Want,” “Nation of Immigrants,” and “Good People as Individuals.” Thus, what is noteworthy in this analysis is the unequivocal dominance of the zero-sum game assumption across the change data analyzed.

Finally, there are strong disconnects between the claims about immigrants in the discourse analyzed and the demographic data from the same time period. For example, there were consistent claims of undocumented immigration increasing, particularly at the southern border. However, estimates of undocumented immigration from Passel and Cohn (2018) indicate that the numbers of undocumented immigrants in the United States decreased by 6.1% between 2010 and 2016. Several possibilities for these disconnects between reader claims and demographic data emerge. One possible explanation is that immigration patterns are not evenly distributed across localities and what is true at the national level (e.g., steady total immigration rates) may not be true at a local level from which a reader comments. Another possible explanation for this discrepancy is that readers are reacting to demographic changes caused by past waves of immigration such as the increase in children of immigrant parents in schools versus the decrease in immigrant students in schools. Finally, the disconnects could be attributed to xenophobia and racism stoked by immigrants as threat narratives promulgated by high profile individuals.
(Crandall et al., 2018; Pierce et al., 2018) and naturalized through media discourse (Stewart et al., 2011).

This study has identified and described emerging patterns in 2016 US-based discourse about immigrant education in an influential social register — online newspaper reader comments. Among the most notable findings is the emergence in the comments of an overwhelmingly negative focus on the immigration status of students deployed using top keywords grouped into seven themes. If this negative focus on immigration status of students is indicative of discursive shifts more broadly, it bodes poorly for the educational context for all American students, but especially those from immigrant families. The window of time explored in this study is important because it fell just prior to notable fluctuation in both public opinion and federal policy about immigration generally in the United States. Future work should investigate discursive changes on this topic within and across other influential registers as well as the nature of the relationship between discursive shifts and shifts in policy and opinion.

Acknowledgements

The author would like to thank John Lister and Katie Sisk for their help preparing data for analysis, Dr Stephen Doolan and Dr Robert Poole for their insight, and the anonymous reviewers whose questions and feedback greatly improved this manuscript.

Funding

The author would like to thank Texas A&M Corpus Christi for internal funding supporting this project.

Competing interests

The author has no competing interests to declare.

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