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Solar Energy:
A Media Analysis of Las Vegas, NV and Phoenix, AZ

by
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ABSTRACT

Solar Energy:

A Media Analysis of Las Vegas, NV and Phoenix, AZ

In recent years, large government-funded solar energy projects across the nation have received increasing media attention—especially with government funded solar projects going bankrupt. This study examines the evolution of media coverage on solar energy issues, including an analysis of political differences and the role they play within two western cities that sit at the epicenter of solar energy resources in the United States, Las Vegas and Phoenix. These cities are poised to compete for and collaborate on projects for millions of dollars in federal research funds and economic development incentives dedicated to the development of solar energy.

This study conducted a content analysis of national newspapers discussing solar energy within Las Vegas, Nevada and Phoenix, Arizona. A content analysis was conducted using ProQuest Newspapers (National Newspapers Expanded). Articles from January 1, 2008, to March 25, 2013, were included in the research. A total of 205 articles were analyzed within the research, 99 for Phoenix and 106 for Las Vegas.

This study found disparate media coverage on solar energy between Phoenix and Las Vegas. The Las Vegas newspaper coverage on solar projects was much more politically debated and included more negative rhetoric than the Phoenix coverage. Whereas the Phoenix articles within the study were more likely to be associated with community projects, public support, and political support for solar energy.

Solar Energy:

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This research project examines media coverage of solar energy issues within two major metropolitan areas, Las Vegas, Nevada and Phoenix, Arizona. Las Vegas and Phoenix are the fastest growing cities within their regions (Teixeira, 2012). With increased growth comes increased electricity consumption, and both cities are abundant with solar energy resources. In recent years, large government-funded solar energy projects across the nation have received increased media attention and scrutiny especially after some major publicized bankruptcies. Therefore, this study analyses the changing media coverage on solar energy issues, including the politicized differences of Las Vegas and Phoenix.

Solar energy is the most abundant renewable energy source available. Many look to solar and other sustainable energy technologies to alleviate the reliance over traditional fossil fuels. Las Vegas and Phoenix are both abundant with massive solar energy and have great potential for solar energy projects. However, solar energy technologies and industries are not cost-competitive with traditional energy sources (Timilsina, et al, 2012). Therefore, government support of solar industry and technology has been essential in its survival worldwide.

The Obama Administration supports greater expansion of solar energy and sees it as one avenue to promote advanced manufacturing in the United States. However, risk and uncertainty are associated with technology innovation, and this is especially true with renewable energy-- which is “more vulnerable” and “more dependent” on government support (Liang & Fiorino, 2013, p. 111). In order to support renewable energy the U.S. government has used tax credits,

loan guarantees, subsidies, and research and development programs (R&D) (Platzer, 2012; Timilsina, et al, 2012; Morris, Nivola, & Schultze, 2012). Supportive policy measures, fluctuating fossil fuel prices, and greenhouse gas emissions have strengthened the solar energy market (Timilsina, et al, 2012, p. 450). Also, recent technological advances in solar energy and the drop in costs for solar cells have attributed to the reemergence of the solar industry. Timilsina et al (2012) argue that “despite a large drop in capital costs and an increase in fossil fuel prices, solar energy technologies are not yet competitive with conventional technologies for electricity production” (p. 450).

President Obama’s 2011 budget provides lending authority support for \$40 billion in loan guarantees for innovative clean energy programs and more than \$108 million in new funding to advance and expand research in wind, solar, and geothermal energies. The availability of federal resources guarantees that alternative energy issues remain an important media topic in the immediate future.

Background

Solar technology, particularly solar photovoltaic (PV) cells were developed in the United States in the 1950s and were mostly used in space satellites for electricity generation in the late 1950s (Timilsina, Kurdgelashvili, & Narbel, 2012). During the oil crisis of the 1970s and the oil shortages of the 1980s, interest in solar energy rose. However, in the subsequent years, the combination of increased oil supplies and falling oil prices—collapsed the burgeoning solar industry (Timilsina, et al, 2012). Since 2000, the solar energy industry has rebounded with recent “phenomenal growth” (Timilsina, et al, 2012, p. 450).

U.S. government subsidies have increased from \$17.9 billion in 2007 (fiscal year) to \$37.2 billion (fiscal year) in 2010. This total includes a combination of direct expenditures, tax expenditures, the subsidy associated with loan guarantees, research and development and deployment (RD&D) spending (Morris, Nivola, & Schultze, 2012, p. S34). With federal support, production of solar cells (utilized in solar panels and solar power plants) has grown about 37 percent in the past decade and 45 percent in the past 5 years (Zhai, 2013, p. 317). Although, even with considerable federal support, solar energy makes up less than 0.1% of U.S. electricity production (Platzer, 2012, pp. 1-2).

In 2009, legislation to instate a carbon tax to control greenhouse gas emissions with a cap-and-trade program failed in the Senate (Morris, Nivola, & Schultze, 2012, p. S37). However, economists argue that a tax or a cap-and-trade regime would be more effective than utilizing technology standards and tax incentives to encourage green energy industries (Morris, Nivola, & Schultze, 2012, p. S35). In doing so, it “would help level the playing field for greener energy sources, for it would require emitters to pay prices that reflect the costs their emissions impose on society” (Morris, Nivola, & Schultze, 2012, p. S35).

Across party lines there are significant differences regarding energy priorities and enacting stricter emissions standards. Democrats and independents support stricter emission limits on power plants to address climate change (72 percent and 64 percent) (Pew Research, 2013). Whereas Republicans are divided with 42 percent favoring stricter standards and 48 percent opposed (Pew Research, 2013). As of April 2009, there were “virtually no partisan differences” on federal funding for research into alternative energy (Pew Research, 2012). Over half of Republicans (54 percent) prioritize expanding production of oil, coal, and gas, with only a third (33 percent) of Republicans prioritizing the development of alternative energies (Pew

Research). Among Democrats and independents, the energy priorities are reversed with much more support of alternative solutions over fossil fuels.

Since 2011, the American public has “prioritized alternative sources over expanding production of oil, coal and natural gas” (Pew Research, 2013). As of February 2013, 54 percent of the public believe the United States should develop alternative sources such as wind, solar, and hydrogen, while 34 percent believe the U.S. should expand the exploration of oil, coal, and natural gas (Pew Research, 2013).

According to Brookings Mountain West, residents in Nevada and Arizona prioritize “investing in wind and solar energy solutions that will generate clean, renewable energy sources and jobs for years to come” rather than energy sources like clean coal and nuclear energy sources “because they are guaranteed to produce jobs now” (Bowman & Teixeira, 2012, p. 127). In fact, 47 percent of Arizona respondents and 48 percent of Nevada respondents believe state officials should make alternative energy a top priority (Bowman & Teixeira, 2012, p. 138). Also, 72 percent of Nevada respondents favored more involvement from the federal government on promoting renewable energy sources, compared to 64 percent of Arizona respondents (Bowman & Teixeira, 2012, p. 133).

In recent years, large government-funded solar energy projects across the nation have received increasing media attention, most notably, the highly publicized failure of Solyndra LLC. The solar panel manufacturer, Solyndra LLC, went bankrupt in 2011 after receiving \$535 million from the U.S. Energy Department. Solar production plants have been affected by bankruptcies, factory closures, and worker layoffs from a global surplus of manufactured solar cells (especially in China), and falling solar module prices (Platzer, 2012). While dropping costs

for solar technology has been beneficial for PV consumers—it has be disastrous for manufacturers in the United States and Europe (Platzer, 2012, p. 1).

While some manufacturers have closed, new and existing solar plants have opened or expanded. There “is a healthy spread across the value chain and technologies when it comes to new PV plants in the United States” (Platzer, 2012, p. 13). Also, Arizona and Nevada have received sizable federal loan guarantees for solar generation and manufacturing projects from the Department of Energy (DOE) under the Section 1705 loan program (which expired September 30, 2011) (Platzer, 2012). Under this program, Arizona received \$2.75 billion in loans compared to \$737 million in solar project loans for Nevada—receiving over three times more funding than Nevada (Platzer, 2012).

Methods

This research project examines media coverage of solar energy issues within two major metropolitan areas, Las Vegas, Nevada and Phoenix, Arizona. The comparative analysis of national media coverage surrounding solar energy in Las Vegas and Phoenix includes a content analysis of national newspapers. This study was unable to find any content analyses that investigated media coverage of alternative energy. Therefore, this research may establish a baseline for future studies on similar topics. ProQuest Newspapers (National Newspapers Expanded) database was utilized to access the sample size for this study. Newspapers from January 1, 2008, to March 25, 2013, are included in the research. The Pew Research Center reports that prior to April 2009 there were virtually no partisan political differences concerning views on federal funding for alternative energy research. Therefore, the study included over a

year before the partisan divide in order to view media coverage before and after the political split regarding energy policy.

Within the database, “solar energy AND Las Vegas” were input into ProQuest Newspapers (National Newspapers Expanded) database with 208 search results. Also, “solar energy AND Phoenix” were input into the ProQuest database with 207 results. Articles were included in the study if the news publications discussed solar energy in terms of those relative cities. Also, publications were included if public officials, politicians, presidential candidates, or presidents made public speeches on solar energy in Las Vegas or Phoenix. After reviewing the 415 articles, 210 articles were excluded from the study. The remaining 205 articles were analyzed within the research, 99 for Phoenix and 106 for Las Vegas.

Within ProQuest Newspapers (National Newspapers Expanded), the database allows the user to “tag” each article with several different words or phrases. These tags can be searched, and all articles selected under that name or phrase will populate. These “tags” were used to organize the research under several classifications including tone. Also, key words can be input into a search engine within the saved searches for Las Vegas and Phoenix through ProQuest to search additional key words within the texts. This was later used to double-check various coding classifications of the articles within the sample.

Each article was coded for tone: positive, negative, or neutral—in relation to solar energy. If an article included the benefits and limitations of solar energy—it was coded as neutral. Also, if an article simply stated factual information including: the market value, investments, building of solar projects, and/or federal funding of solar industries—it was also coded as neutral. However, if the article discussed public support, administration advocacy, and/or state government stances on solar energy assistance, without negative drawbacks to

solar—it was coded as positive. For example, while campaigning for president in 2008, John McCain was quoted in the *Denver Post* for saying: "I believe climate change is real. I think it's devastating. I think we have to act," McCain said. He also called it "a patriotic duty" to maintain "our natural treasures" (Olinger, 2008, A8). This article only included the beneficial aspects of solar energy in combating climate change and was therefore coded as positive. Another example of positive tone is in a Wall Street Journal article that explained how solar power had cut energy bills and saved teaching jobs from budgetary cuts. One superintendent, called solar energy use in the schools a "no brainer," another superintendent said because of the financial savings from solar energy they were able to "recall six teachers who had been laid off due to budget cuts" (Carlton, 2012, R.3.). Articles coded as negative only discussed the drawbacks of solar energy. For example, in 2008, *The Washington Post* published an article entitled "Wake Up, America. We're Driving Toward Disaster" this article only included the detriments of solar energy policy and its utilization—and was therefore coded as negative.

The inclusion of political representatives at the state and federal government were also tracked within the study. Upon initial review each article was coded as "political" if there was political discussion or the representation of public officials within the coverage of solar energy. These articles were "tagged" political during their initial reading. Also, the following words were input to search within the 205 sample size "Obama," "Democrat," "Republican," "Congress," and "Washington." The articles that populated were reviewed and coded "political" if they included political representatives at the state and/or federal government level within the discussion of solar energy. Also, articles were coded as "partisan" if they included opposing political viewpoints on solar energy. Within the study, only ten articles were coded as partisan,

and all ten of these articles were in the 106 sample size for Las Vegas. Since so few articles were coded partisan, they were not statistically analyzed within the results.

Along with coding for tone and “political,” a preliminary coding for subject and context was included. When conducting a content analysis on media coverage it is necessary to review a large sample of the study in order to uncover repeated concepts, attributes, and related topics within your research materials. Upon reviewing each article, several words and phrases were initially tagged to each article. These words were frequently mentioned within articles, a sample of these included: manufacturing, jobs, solar projects, subsidy, loans, energy policy, bankruptcy, China, etc. After repeated words and phrases were continually “tagged,” these tags were then searched within the 205 selected articles for the study. Then “energy policy,” “China or Chinese,” and “bankrupt, bankruptcy, failure, or Solyndra” were searched within the 205 sample size and coded in the study.

Finally, each of the publications included within the study were coded for “article focus.” This classification denotes the main topic of this article as it pertains to solar energy. Three factors determined the classification for article focus: the title of the article, ProQuest’s subject categories, and the preliminary tags used by the coder. Within ProQuest, the articles within their database are automatically coded for subject. An article may have one or ten subjects listed for each article (these subjects are also searchable within ProQuest). The following is an example of this coding process, “Innovations in Energy (A Special Report) -- The Enlightened Classroom: School districts are using solar power to cut their energy bills -- and cope with budget cuts” was the title of the article. “School finance,” “Alternative energy sources,” “Cost control,” “Series & special reports,” “Solar energy,” and “School districts” were the coded subjects provided by ProQuest. The preliminary tags associated with the article were “green schools” and “protecting

teaching jobs.” After considering all three factors, the article was coded “green schools” for article focus. Each article was given one main category type called “article focus,” which included 17 classifications. The top five categories for the 205 articles included in the study were: solar industry, solar projects, energy policy, green homes, and political campaigns. The words “solar industry” and “solar projects” were sometimes mentioned within the same article. To clarify, publications centered on developing solar were denoted “solar projects,” and articles directed at existing solar companies and ongoing manufacturing were designated “solar industry.”

Results

The articles included within the data sample were collected from the ProQuest Newspapers (National Newspapers Expanded) database. The articles included within the study are from eleven publications, two are online versions of newspapers included within the research (*Wall Street Journal* online and *The New York Times* online). Table 1 displays the frequencies and percents of the 205 publications analyzed within the research. The top five newspaper publications within the study are the *Los Angeles Times*, *The Wall Street Journal*, *The New York Times*, *The Washington Post*, and *USA Today*. Figure 1 displays the graphical version of these frequencies.

Table 1

	Publication			
	Frequency	Percent	Valid Percent	Cumulative Percent
Los Angeles Times	37	18.0	18.0	18.0
The Wall Street Journal	37	18.0	18.0	36.1
The New York Times	34	16.6	16.6	52.7
The Washington Post	25	12.2	12.2	64.9
USA Today	15	7.3	7.3	72.2
Wall Street Journal (online)	13	6.3	6.3	78.5
Denver Post	12	5.9	5.9	84.4
Boston Globe	11	5.4	5.4	89.8
Chicago Tribune	9	4.4	4.4	94.1
The Christian Science Monitor	5	2.4	2.4	96.6
New York Times Magazine	3	1.5	1.5	98.0
The Atlanta Journal-Constitution	2	1.0	1.0	99.0
The New York Times (online)	2	1.0	1.0	100.0
Total	205	100.0	100.0	

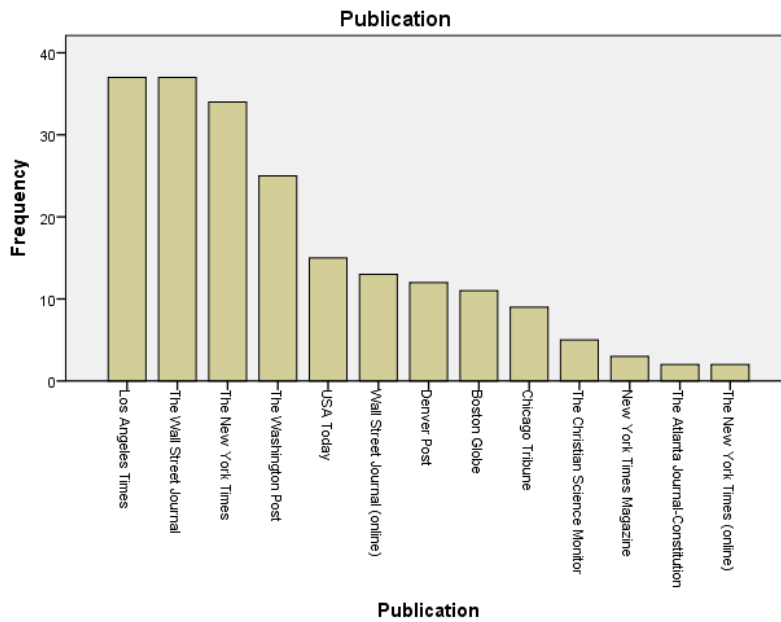
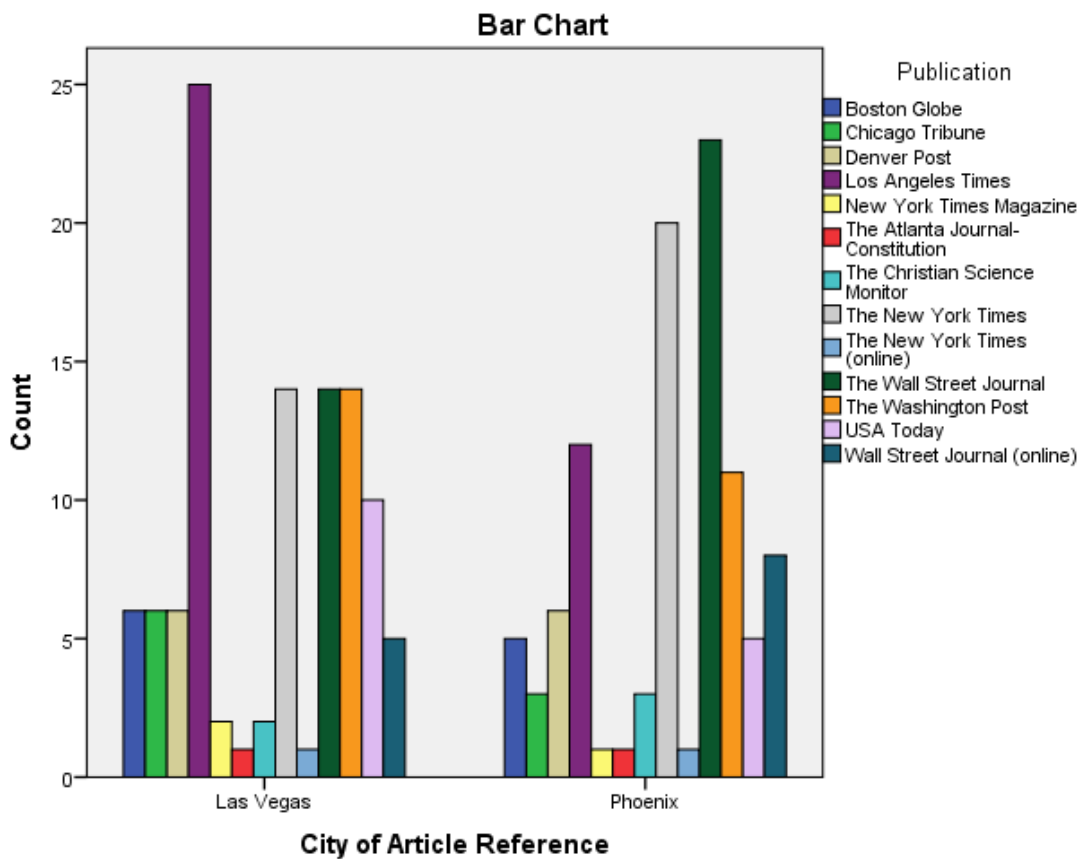


Figure 1

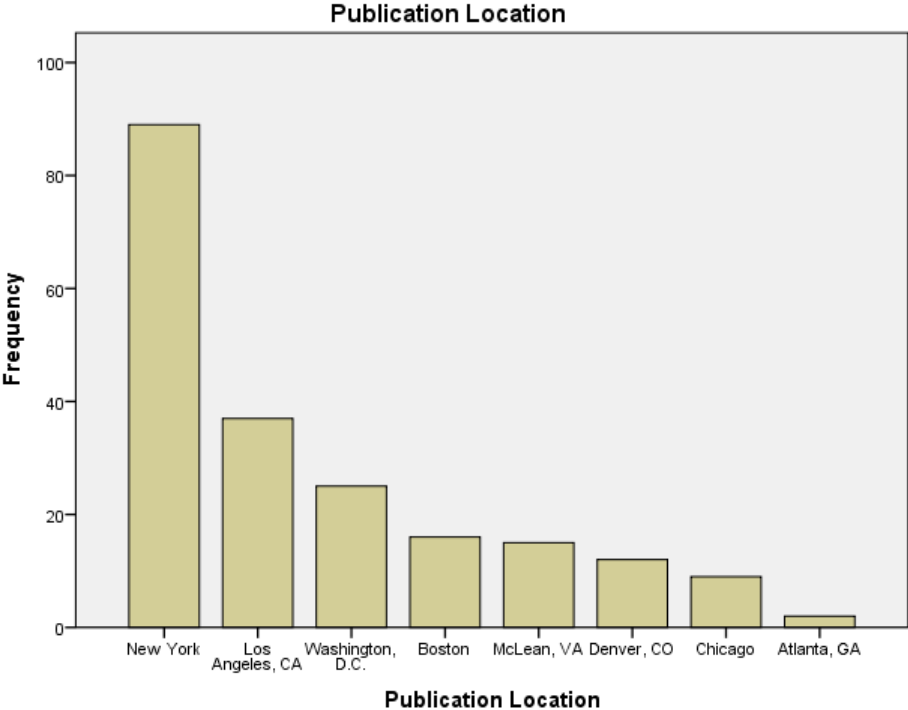
When split for city of article reference (Las Vegas or Phoenix), there was some variance between the two cities. The top five publications for Las Vegas included: the *Los Angeles Times*, *The Wall Street Journal*, *The New York Times*, *The Washington Post*, and *USA Today*. While the top five publications for Phoenix included: *The Wall Street Journal*, *The New York Times*, the *Los Angeles Times*, *The Washington Post*, and the *Denver Post*. For Las Vegas, the top two publications are overwhelmingly the *Los Angeles Times* followed by *The Wall Street Journal* paper and online version. For Phoenix *The Wall Street Journal* paper and online version is followed by *The New York Times* paper and online version.

Figure 2



Next, the data was run for publication location within the sample size of the 205 articles. New York is overwhelmingly the largest contributor within the research. The graph in Figure 3 represents all the articles within the study. Overwhelmingly, the majority of the articles were from New York. 89 of the 205 articles included within the study were from New York, which was 43 percent of all the articles included in the research.

Figure 3



When analyzed according to article reference, Las Vegas or Phoenix, there were some differences. Figure 4 separates the articles on solar energy according to city (Las Vegas and Phoenix). Still, the most popular city of publication was New York for both categories. For Phoenix, New York publications made up 54 percent of the sample size compared to all the cities. For Las Vegas, 34 percent of the articles were from New York, followed by Los Angeles at 24 percent of the newspapers studied.

Figure 4

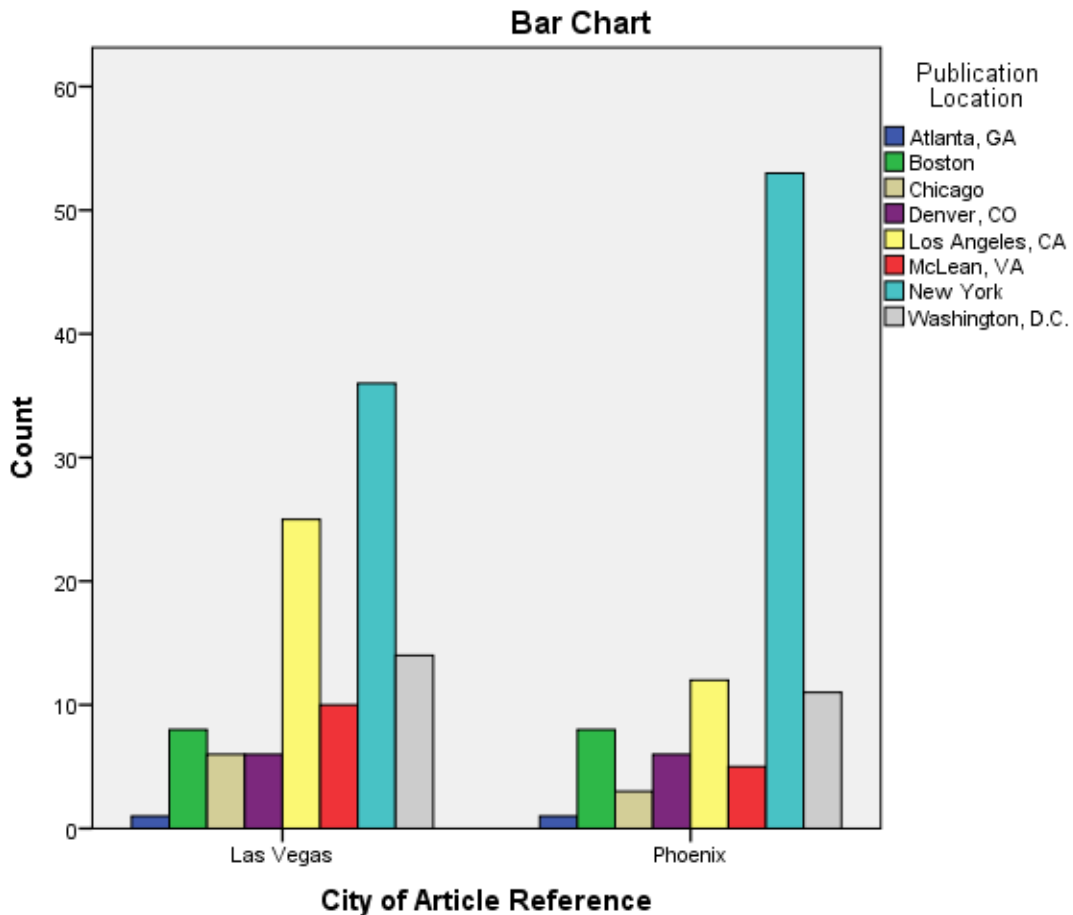


Figure 5 shows the top five categories for the 205 articles included in the study. These were: solar industry, solar projects, energy policy, green homes, and political campaigns. The data was then separated to identify the “article focus” for Las Vegas and Phoenix.

Figure 5

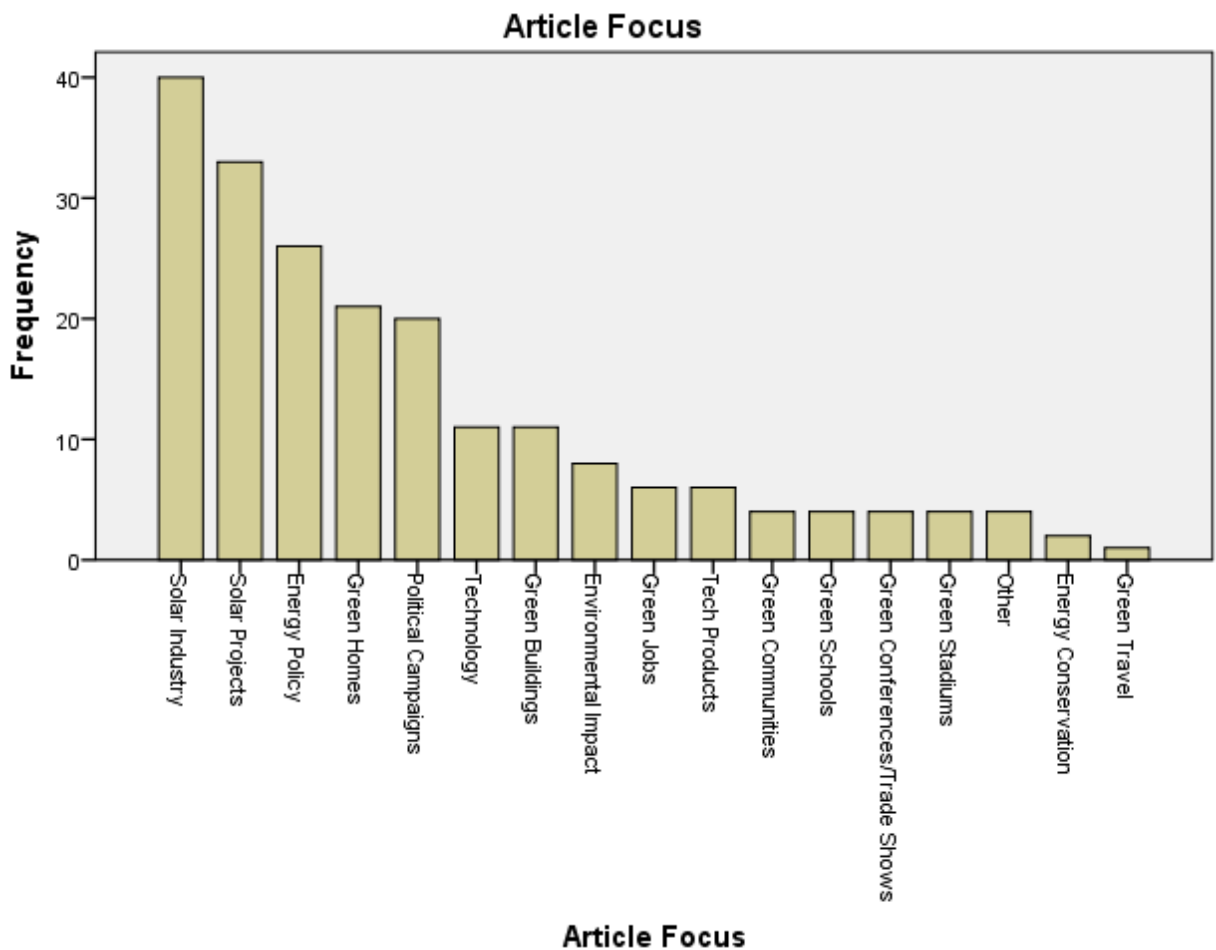


Figure 6 reveals the top categories for Las Vegas and Phoenix. The top five categories for Phoenix are solar industry, solar projects, green homes, energy policy, and green buildings. The top six categories for Las Vegas are: solar projects, energy policy, political campaigns, solar

industry, green homes, and technology (green homes and technology were tied for fifth). Also both cities included categories the other city did not. For example, Las Vegas included green travel, and energy conservation that Phoenix did not have. Phoenix included green communities, green stadiums, and other—that were not categories for Las Vegas’ sample.

Figure 6

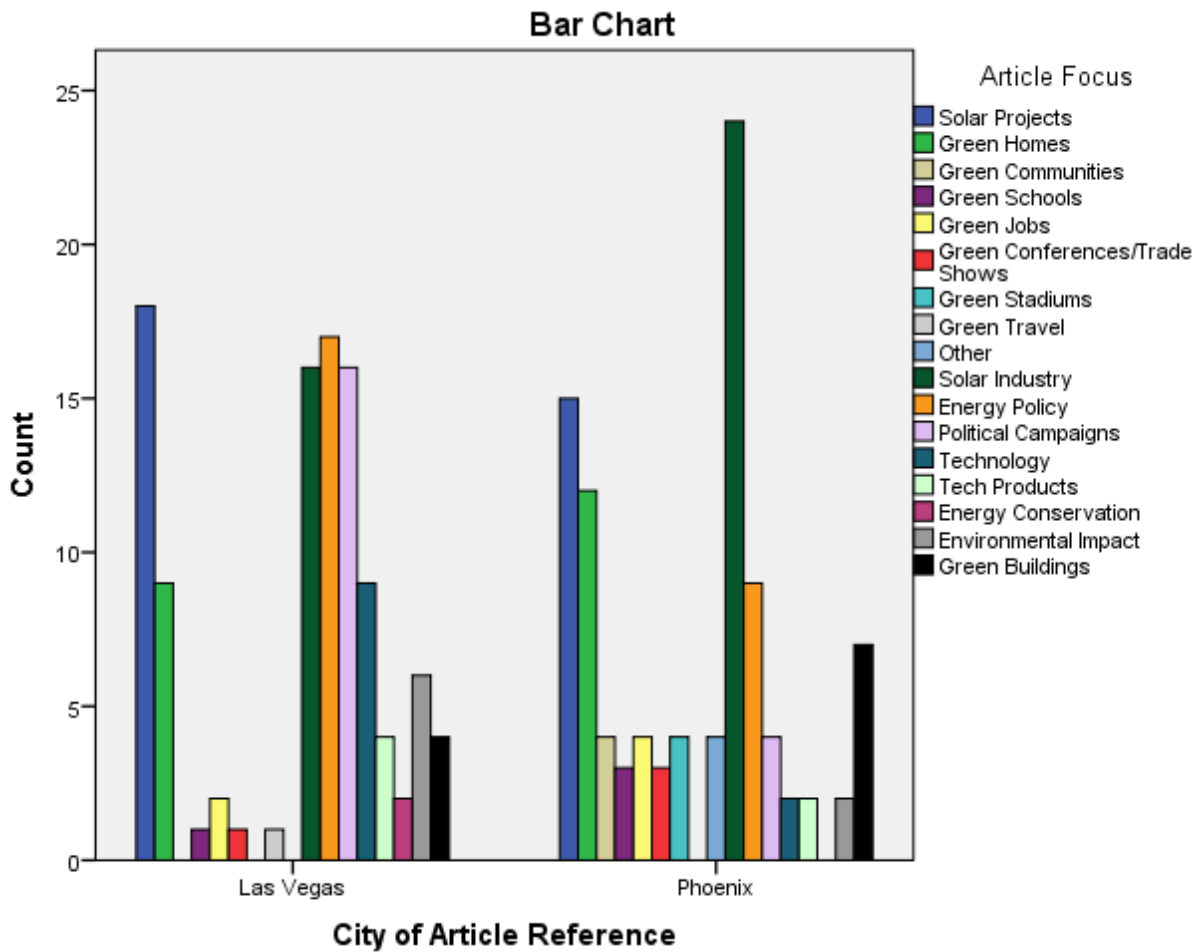


Table 2

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9.455 ^a	1	.002		
Continuity Correction ^b	8.411	1	.004		
Likelihood Ratio	9.790	1	.002		
Fisher's Exact Test				.003	.002
N of Valid Cases	205				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.80.

b. Computed only for a 2x2 table

Table 2 reveals there is a significant difference on “article focus” between the news coverage of Las Vegas and Phoenix regarding solar energy at a p-value of .002. A p-value of .05 would denote a significant relationship between city and article focus, the .002 level, points to a strong difference. However, this data could be further separated and analyzed for varying relationships.

Table 3

Crosstab						
			Tone of Story			Total
			Positive	Neutral	Negative	
City of Article Reference	Phoenix	Count	11	86	2	99
		% within City of Article Reference	11.1%	86.9%	2.0%	100.0%
		% within Tone of Story	33.3%	51.8%	33.3%	48.3%
		% of Total	5.4%	42.0%	1.0%	48.3%
	Las Vegas	Count	22	80	4	106
		% within City of Article Reference	20.8%	75.5%	3.8%	100.0%
		% within Tone of Story	66.7%	48.2%	66.7%	51.7%
		% of Total	10.7%	39.0%	2.0%	51.7%
Total	Count	33	166	6	205	
	% within City of Article Reference	16.1%	81.0%	2.9%	100.0%	
	% within Tone of Story	100.0%	100.0%	100.0%	100.0%	
	% of Total	16.1%	81.0%	2.9%	100.0%	

Table 3 reveals the majority of the news articles were neutral in tone, which is not surprising. News media should typically be neutral in tone, and properly weigh arguments or assertions on various topics including solar energy.

Figure 7

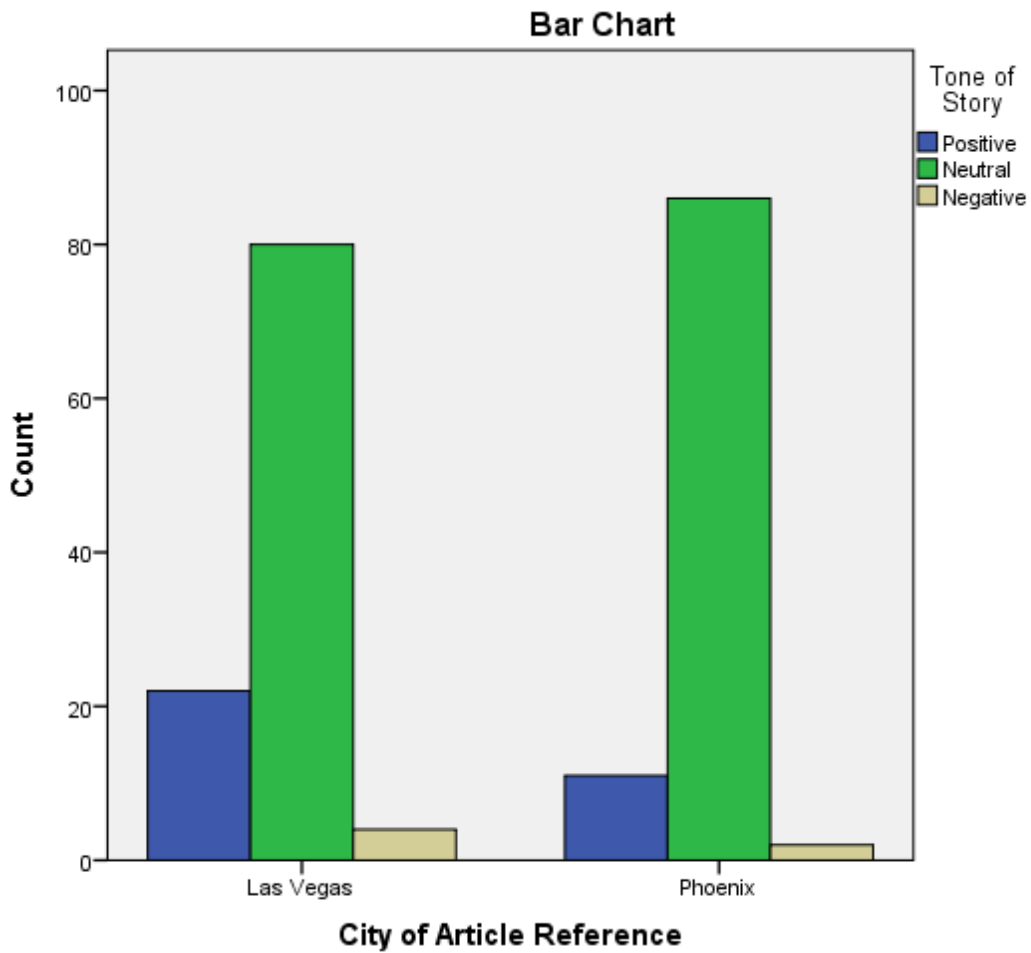


Table 4

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.316 ^a	2	.116
Likelihood Ratio	4.395	2	.111
N of Valid Cases	205		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.90.

Table 4 shows there is no significant relationship differences between Las Vegas and Phoenix on tone. The p-value for the Chi-Square tests is .116, the relationship is significant at the .05 level or less.

Table 5

		Political Context		Total	
		Yes	No		
City of Article Reference	Phoenix	Count	40	59	99
		% within City of Article	40.4%	59.6%	100.0%
		Reference	41.7%	54.1%	48.3%
		% within Political Context	19.5%	28.8%	48.3%
		% of Total	56	50	106
		% within City of Article	52.8%	47.2%	100.0%
		Reference	58.3%	45.9%	51.7%
		% within Political Context	27.3%	24.4%	51.7%
Total		Count	96	109	205
		% within City of Article	46.8%	53.2%	100.0%
		Reference	100.0%	100.0%	100.0%
		% within Political Context	46.8%	53.2%	100.0%

Table 6

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.174 ^a	1	.075		
Continuity Correction ^b	2.695	1	.101		
Likelihood Ratio	3.184	1	.074		
Fisher's Exact Test				.093	.050
N of Valid Cases	205				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 46.36.

b. Computed only for a 2x2 table

Table 5 shows Las Vegas coverage was more likely to be categorized as political, than Phoenix. 52.8 percent of Las Vegas coverage was political, compared to 40.4 percent of Phoenix news on solar energy. Table 6 includes the chi-square calculations. With a p-value of .075, the relationship is approaching significance; if the sample size was larger, there may be a stronger connection between political context and city of article reference.

Table 7

		Energy/Policy Context		Total	
		Yes	No		
City of Article Reference	Phoenix	Count	11	88	99
		% within City of Article Reference	11.1%	88.9%	100.0%
		% within Energy/Policy Context	26.8%	53.7%	48.3%
		% of Total	5.4%	42.9%	48.3%
Total	Las Vegas	Count	30	76	106
		% within City of Article Reference	28.3%	71.7%	100.0%
		% within Energy/Policy Context	73.2%	46.3%	51.7%
		% of Total	14.6%	37.1%	51.7%
Total		Count	41	164	205
		% within City of Article Reference	20.0%	80.0%	100.0%
		% within Energy/Policy Context	100.0%	100.0%	100.0%
		% of Total	20.0%	80.0%	100.0%

Table 7 shows 11.1 percent of Phoenix news coverage discussed energy policy, compared to 28.3 percent of Las Vegas coverage. Therefore, articles on Las Vegas and solar energy are over twice as likely to discuss energy policy as articles on Phoenix and solar energy. Table 8 shows the relationship is significant and very strong with a p-value of .002.

Table 8

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9.455 ^a	1	.002		
Continuity Correction ^b	8.411	1	.004		
Likelihood Ratio	9.790	1	.002		
Fisher's Exact Test				.003	.002
N of Valid Cases	205				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 19.80.

b. Computed only for a 2x2 table

Table 9

Crosstab					
			Mention of China or Chinese Solar Industry		Total
			Yes	No	
City of Article Reference	Phoenix	Count	20	79	99
		% within City of Article Reference	20.2%	79.8%	100.0%
		% within Mention of China or Chinese Solar Industry	74.1%	44.4%	48.3%
		% of Total	9.8%	38.5%	48.3%
	Las Vegas	Count	7	99	106
		% within City of Article Reference	6.6%	93.4%	100.0%
		% within Mention of China or Chinese Solar Industry	25.9%	55.6%	51.7%
		% of Total	3.4%	48.3%	51.7%
		Count	27	178	205
		% within City of Article Reference	13.2%	86.8%	100.0%
Total	% within Mention of China or Chinese Solar Industry	100.0%	100.0%	100.0%	
	% of Total	13.2%	86.8%	100.0%	

Table 9 shows that 27 out of 205 articles mentioned Chinese solar energy within the Las Vegas and Phoenix articles included within the study. However, the majority of these articles start appearing after 2011, further analysis and inclusion of recent publications, may see a significant trend of Chinese solar energy included within the media coverage of Las Vegas and Phoenix. Of the 27 articles, 74.1 percent are within the Phoenix media coverage, with 25.9 percent within the Las Vegas coverage. In Table 10, this relationship is significant at the .004 level. However, the sample size of articles on Chinese solar energy needs to be larger to conclude confidently there is a strong relationship. Figure 8 charts the Chinese solar energy coverage between Las Vegas and Phoenix.

Table 10

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.277 ^a	1	.004		
Continuity Correction ^b	7.131	1	.008		
Likelihood Ratio	8.540	1	.003		
Fisher's Exact Test				.006	.003
N of Valid Cases	205				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.04.

b. Computed only for a 2x2 table

Figure 8

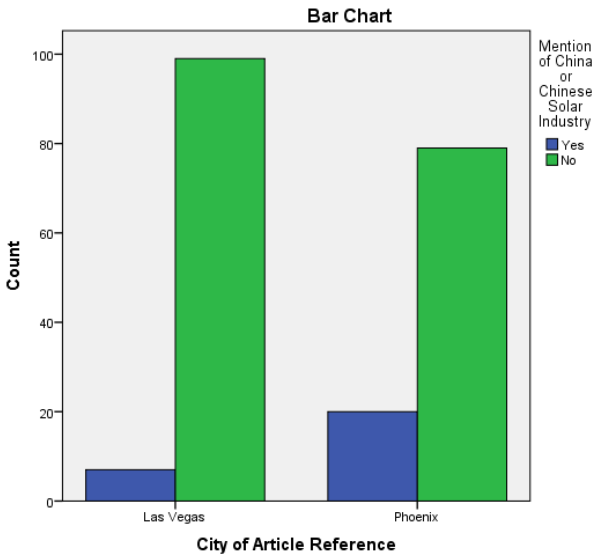


Table 11

Crosstab

		Mention of Solyndra Bankruptcy		Total
		Yes	No	
City of Article Reference	Phoenix	9	90	99
	Count			
	% within City of Article Reference	9.1%	90.9%	100.0%
	% within Mention of Solyndra Bankruptcy	45.0%	48.6%	48.3%
	% of Total	4.4%	43.9%	48.3%
	Las Vegas	11	95	106
Total	Count			
	% within City of Article Reference	10.4%	89.6%	100.0%
	% within Mention of Solyndra Bankruptcy	55.0%	51.4%	51.7%
	% of Total	5.4%	46.3%	51.7%
	Count	20	185	205
	% within City of Article Reference	9.8%	90.2%	100.0%
Total	% within Mention of Solyndra Bankruptcy	100.0%	100.0%	100.0%
	% of Total	9.8%	90.2%	100.0%

Table 11 shows 20 out of the 205 articles included within this sample included the words “bankrupt,” “bankruptcy,” “failure,” or “Solyndra” within the Las Vegas and Phoenix coverage of solar energy. These inclusions started appearing in the 2011 to 2013 solar energy coverage. Nine of the Phoenix articles and eleven of the Las Vegas articles included references to bankruptcy and/or Solyndra in their discussion of solar energy. Table 12 shows a p-value of .75, there is no significant difference in media coverage of the two cities on this topic.

Table 12

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.096 ^a	1	.756		
Continuity Correction ^b	.006	1	.940		
Likelihood Ratio	.096	1	.756		
Fisher's Exact Test				.817	.471
N of Valid Cases	205				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.66.

b. Computed only for a 2x2 table

Discussion

Overall, the media coverage on Phoenix and Las Vegas regarding solar energy were very different. One of the prevalent themes within the Phoenix articles was an overwhelming sense of community, public support, and political support for solar energy. Within the articles there was a lot of discussion on encouraging and sustaining solar energy in homes, communities, commercial buildings, schools, and even sports stadiums. Some of the articles included in the study discussed how solar canopies were being added to the Phoenix stadium without government subsidies. Within the media coverage of one “green stadium” article, they discussed how the half time show of a sporting event included a performance by Cirque du Soleil where performers were dressed as wind and solar energy sources.

A large portion of Phoenix articles were tagged in the preliminary coding process as “subsidy,” “loan,” “incentives,” and “investment”—these were recurring themes within the Phoenix coverage in particular. Further coding should be conducted on this sample searching those key words and comparing the results between the two cities. Also, when “bankruptcy” “failure” and “Solyndra” were searched for Phoenix—these news stories were very different from the Las Vegas coverage. For example, the title of one of these articles was “Ryan plan calls two solar projects 'ill-fated,' but the projects are doing fine” (Mufson, 2013). This article and others that discussed solar company bankruptcies within the Phoenix sample defended the progress and success of the solar industry in Arizona. Some articles actually went into elaborate detail to explain the technological differences and structural disparities between Solyndra and Arizona power plants—explaining why their power plants are successful while others have not been.

In contrast, the Las Vegas coverage that included solar company bankruptcies was much more vulnerable to negative rhetoric. One of the reasons for this was that within the sample, Las Vegas and solar energy were also associated with political and presidential campaigns. “Political campaigns” were four times more likely to be the article focus for Las Vegas over Phoenix. Another reason is that there were Nevada solar power plants that declared bankruptcy; therefore Las Vegas was much more likely to be lumped into negative rhetoric with Solyndra regarding wasted federal money.

Three articles excluded from the Las Vegas data are also worth mentioning. The articles discussed a political campaign ad that combined Las Vegas and Solyndra together. However, these publications were excluded from the study because they did not discuss solar energy in terms of Las Vegas. The ad declares: "In an ironic twist, the head of the agency couldn't make it to Vegas because she had meetings planned at Solyndra, a different sort of gamble" (2012, Kessler). The context here combines Las Vegas and Solyndra, describing both as a gamble. However, the juxtaposition of both together could also insinuate to solar interests that support for Nevada solar projects are also haphazard.

Future studies should include a larger pool of articles to be analyzed in order to provide a more thorough analysis of solar policy for the state of Nevada and Arizona. By inputting “solar energy AND Arizona” into ProQuest National Newspapers Expanded, 588 results populated that were published from January 1, 2008 to present. Then by searching “solar energy AND Nevada” within the same database, 395 results appear within that publication timeframe. This material would provide more in-depth insight to the complex topics and fluctuating issues surrounding solar energy and these states.

References

- Bowman, K. & Teixeira, R. (2012). The mountain west today: A regional survey. In Teixeira, R. (Ed.), *America's new swing region: Changing politics and demographics in the mountain west*. (pp.126-152). Washington, D.C.: Brookings Institution Press.
- Carlton, J. (2012, June 18). Innovations in energy (A special report) --- the enlightened classroom: School districts are using solar power to cut their energy bills -- and cope with budget cuts. *Wall Street Journal*, New York, R.3.
- Frey, W. H. & Teixeira, R. (2012). America's new swing region: The political demography and geography of the mountain west. In Teixeira, R. (Ed.), *America's new swing region: Changing politics and demographics in the mountain west*. (pp.11-68). Washington, D.C.: Brookings Institution Press.
- Kessler, G. (2012, May 6). Ads cite previously debunked claims about stimulus. *The Washington Post*. Washington, D.C, A.7.
- Kunstler, J. H. (2008, May 25). Wake up, America. We're driving toward disaster. *The Washington Post* Washington, D.C, B.3.
- Liang, J., & Fiorino, D. J. (2013). The implications of policy stability for renewable energy innovation in the united states, 1974–2009. *Policy Studies Journal*, 41(1), 97-118.
- Morris, A. C., Nivola, P. S., & Schultze, C. L. (2012). Clean energy: Revisiting the challenges of industrial policy. *Energy Economics*, 34, S34-S42.
- Mufson, S. (2013, March 13) Ryan plan calls two solar projects 'ill-fated,' but the projects are doing fine But the two projects are alive and well. *The Washington Post*, Washington, D.C.

- Olinger, D. (2008, January 29). Water, land out of field's focus candidates lump crucial regional concerns in with energy plans. *Denver Post*, Denver, CO. A.8.
- Pew Research Center for the People & the Press. (2013, February 20). Section 1: Opinions about major issues. Retrieved February 24, 2013, from <http://www.people-press.org/2013/02/20/section-1-opinions-about-major-issues/>
- Pew Research Center for the People & the Press. (2012, Mar. 19). Those aware of fracking favor its use: As gas prices pinch, support for oil and gas production grows.
- Platzer, M. (2012). U.S. solar photovoltaic manufacturing: Industry trends, global competition, federal support. *Washington, DC: Congressional Research Service*, 6, 1-28.
- Timilsina, G. R., Kurdgelashvili, L., & Narbel, P. A. (2012). Solar energy: Markets, economics and policies. *Renewable and Sustainable Energy Reviews*, 16(1), 449-465.
- Zhai, P. (2013). Analyzing solar energy policies using a three-tier model: A case study of photovoltaics adoption in Arizona, United States. *Renewable Energy*, 57, 317-322.