August 2019

Does the Decriminalization of Prostitution Reduce Rape and Sexually Transmitted Disease? A Review of Cunningham and Shah Findings

Lily Lachapelle
University of Rhode Island, lily_lachapelle@my.uri.edu

Clare Schneider
University of Rhode Island, clare_schneider@my.uri.edu

Melanie Shapiro
Law Office of Melanie Shapiro, melanie@melanieshapiroesq.com

Donna M. Hughes
University of Rhode Island, donnahughes@uri.edu

Follow this and additional works at: https://digitalcommons.uri.edu/dignity

Recommended Citation
Lachapelle, Lily; Schneider, Clare; Shapiro, Melanie; and Hughes, Donna M. (2019) "Does the Decriminalization of Prostitution Reduce Rape and Sexually Transmitted Disease? A Review of Cunningham and Shah Findings," Dignity: A Journal on Sexual Exploitation and Violence. Vol. 4: Iss. 3, Article 6.
DOI: 10.23860/dignity.2019.04.03.06
Available at: https://digitalcommons.uri.edu/dignity/vol4/iss3/6
Does the Decriminalization of Prostitution Reduce Rape and Sexually Transmitted Disease? A Review of Cunningham and Shah Findings

Abstract
In 2013, research findings by Cunningham and Shah claimed that rape and sexually transmitted diseases were reduced by decriminalized prostitution in Rhode Island. The original unpublished claims have received wide media coverage which have gone unexamined. This review finds errors in their analyses. One error is the date when prostitution was decriminalized in Rhode Island. Cunningham and Shah claim that prostitution was decriminalized in 2003. Our analysis finds the date of decriminalization of prostitution was 1980. The change in the start date of decriminalization significantly alters the analysis and the findings. Another error results from Cunningham and Shah using an outlier data point to define a period of analysis. The results of this review call into question the claims that the decriminalization of prostitution reduced rape and sexually transmitted disease.

Keywords
Rhode Island, prostitution, decriminalization, rape, sexual assault, sexually transmitted disease, gonorrhea, Cunningham and Shah, legislation, criminal code, public health

Creative Commons License
This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

Acknowledgements
The authors thank the following people for their time and expertise to review this article: Kezban Yağcı Sokat, Adjunct Professor, Industrial Engineering and Management Sciences (IEMS), Northwestern University, USA, and Joanne Giannini, former state Representative, General Assembly, Rhode Island, USA.
DOES THE DECRIMINALIZATION OF PROSTITUTION REDUCE RAPE AND SEXUALLY TRANSMITTED DISEASE? A REVIEW OF CUNNINGHAM AND SHAH FINDINGS

Lily Lachapelle  
University of Rhode Island

Clare Schneider  
University of Rhode Island

Melanie Shapiro  
Law Office of Melanie Shapiro

Donna M Hughes¹  
University of Rhode Island, USA

ABSTRACT
In 2013, research findings by Cunningham and Shah claimed that rape and sexually transmitted diseases were reduced by decriminalized prostitution in Rhode Island. The original unpublished claims have received wide media coverage which have gone unexamined. This review finds errors in their analyses. One error is the date when prostitution was decriminalized in Rhode Island. Cunningham and Shah claim that prostitution was decriminalized in 2003. Our analysis finds the date of decriminalization of prostitution was 1980. The change in the start date of decriminalization significantly alters the analysis and the findings. Another error results from Cunningham and Shah using an outlier data point to define a period of analysis. The results of this review call into question the claims that the decriminalization of prostitution reduced rape and sexually transmitted disease.

KEYWORDS
Rhode Island, prostitution, decriminalization, rape, sexual assault, sexually transmitted disease, gonorrhea, Cunningham and Shah, legislation, criminal code, public health

CLAIMS THAT DECRIMINALIZED PROSTITUTION in Rhode Island resulted in a decrease in rape and gonorrhea can be traced to a 2013 unpublished paper by Scott Cunningham and Manisha Shah entitled Decriminalized indoor prostitution: Surprising implications for sexual violence and public health

¹ Corresponding author; donnahughes@uri.edu
The authors conclude that decriminalized prostitution in Rhode Island resulted in: 1) a “dramatic decrease” in rape offenses; and 2) a “dramatic decrease” in the incidence of gonorrhea (Cunningham & Shah, 2014).

After Cunningham and Shah uploaded their 2013 paper to an online site for unpublished scholarly articles in 2014, it received wide coverage. Leading mainstream news media, such as The Wall Street Journal (Leubsdorf, 2014), The Washington Post (Ehrenfreund, 2014), Time (Brown, 2014), and The Economist (Prostitution: A personal choice, 2014), reported their findings with no critical analysis. Since then, the findings have acquired the status of facts, and are reported as such in publications, blogs, and political and economic analyses around the world. Within one year, the Cunningham & Shah unpublished findings were being used by reviewers of papers submitted to academic journals to reject research papers on prostitution and sex trafficking.

Shortly after the Cunningham and Shah paper was released, Brooks and Hughes (2014a & 2014b) analyzed the paper and wrote about the serious flaws in the analysis. These rebuttals never received the attention the paper did.

The myths created by the unpublished paper took on a life of their own. Like a lot of myths, it’s what some people want to believe. Also, a small, but vocal, group of activists who want to decriminalize prostitution now regularly use these incorrect findings to support their advocacy (Ahlquist, 2019; GoLocalProv News Team, 2019).

Methods

This paper analyzes the Cunningham and Shah paper and discusses its flaws and the conceptual errors they made when collecting and analyzing the data.

This analysis focuses on two areas of Cunningham & Shah’s analysis. The first is the date when prostitution was decriminalized in Rhode Island. This is a crucial point because it sets the correct time frame for the analysis. Cunningham and Shah (2014, 2018) write that the appropriate time frame is 2003 to 2009. The authors of this article review that time frame.

To determine when prostitution was decriminalized, historic, legislative documents concerning the amendments to the Rhode Island criminal code were examined and court documents for the federal civil sex discrimination lawsuit (COYOTE v Roberts) were retrieved from the National Archives Records Center in Waltham, Massachusetts. Local media coverage from 1973-1980 related to the issue of prostitution was retrieved from the University of Rhode Island microfiche collection.

The second focus of the authors’ review is on the data trends for rape and gonorrhea in Rhode Island over the appropriate time frame for analysis. Data on rape was obtained from the FBI Uniform Crime Reports. Data on the sexually

---

2 In 2018, five years after its original date, Cunningham and Shah’s paper was published by The Review of Economics.

3 Now, if you google “rape, reduced, decriminalized prostitution, Rhode Island” you get 110,000 hits.
transmitted diseases gonorrhea and chlamydia were retrieved from the Centers for Disease Control.

Cunningham and Shah use complicated statistical analysis to arrive at their findings. Instead of trying to deconstruct their statistical models and calculations, the researchers in this paper started by plotting the official data to visibly inspect trends over time, particularly for the period of analysis.

Below are the findings of this simpler analysis. They reveal the factual errors and the conceptual data analysis flaws that enabled Cunningham and Shah to arrive at their findings that rape and gonorrhea were reduced during the time that prostitution was decriminalized in Rhode Island.

The Decriminalization of Prostitution in Rhode Island

The first question about the Cunningham and Shah findings is about the appropriate time frame for the analysis of decriminalization of prostitution in Rhode Island. This is a crucial fact because it frames the entire Cunningham and Shah analysis.

The authors of this review have found that prostitution, if it occurred indoors, was decriminalized in 1980 as a result of an amendment made on May 15, 1980, to the Rhode Island criminal code, Rhode Island General Law Title 11, Chapter 34, Section 5 (§11-34-5). The amendment was introduced into the House by Representative Matthew J. Smith (H 733) and into the Senate by Senator Richard R. Patterson (S 2304).

This amendment deleted the section of the criminal code that referred to prostitution. It allowed the statute for soliciting for prostitution on the street (Loitering for Indecent Purposes, § 11-34-8) to remain. It reduced the penalty for “loitering for indecent purposes” from a felony to a misdemeanor. This was done to make prosecutions simpler and more effective in order to reduce prostitution on the street, which was drawing significant complaints from the community (Residents write mayor on harlots, 1978; Hilzik, 1979; Walsh, 1980).

The decision to amend the criminal code was also possibly influenced by the pending 1976 sex discrimination federal class-action suit COYOTE v Roberts (76-0254) which was brought by prostitute women, including a convicted madam from San Francisco, Margo St. James, and the organization COYOTE4. They filed suit against the Attorney General of Rhode Island and the Chief of Police of Providence for discrimination because women were arrested more often than men who solicited prostitution. To examine this case and the possible influence on legislators, the authors obtained the historic records of the case, COYOTE v. Roberts (1976,1980, 1981).

The authors of this article reviewed the prostitution arrest data that COYOTE and the prostitute women presented at trial in September 1979. It showed that

4 Margo St. James was arrested and convicted in San Francisco in 1962 for “soliciting and keeping a disorderly house in November 1962” by her own admission (Beatty, 1996, p.9).
indeed women were more often arrested than men for the same offense of soliciting for prostitution.

From 1976, when the federal case against Rhode Island was filed and during the testimony for the trial in 1979, there was significant press coverage, so most Rhode Islanders would have been aware of the federal case and the arguments being made about how criminalization of prostitution and arrests were discriminatory against women in prostitution (Lioce, 1976; COYOTE yelps in court, 1979). Also, during this period of time many sociologists were calling prostitution a “victimless crime” (Rich, 1978, Hiltzik, 1979).

In May 1980, the Rhode Island General Assembly passed the prostitution amendments to the criminal code. This effectively ended the COYOTE v Roberts suit. Upon decriminalizing prostitution (but not Loitering for Indecent Purposes), the federal lawsuit was moot. No women or men would be arrested for prostitution if the act occurred indoors. Therefore, Rhode Island officials could claim that there was no longer any discrimination against women in arrests for prostitution.

Federal District Court Judge Pettine affirmed the meaning of the legal change in the criminal code for prostitution when he wrote that “the amendments appear to have decriminalized the sexual act itself, even when undertaken for remuneration” (Pettine, 1980). Judge Pettine further wrote that the May 1980 amendment to the Rhode Island criminal code gave the prostitute women who sued Rhode Island what they were seeking by filing suit: “[T]he May 1980 amendments afforded plaintiffs a very substantial portion of the relief they sought through litigation” (Pettine, 1980).

The authors of this paper do not know what communication or discussion there may have been among officials and legislators; however, it appears following Judge Pettine’s report that they should have been aware of the implications of the amended Rhode Island criminal code.

For the next 29 years, prostitution was not illegal if it occurred indoors. In 2009, the Rhode Island General Assembly voted to recriminalize prostitution if it occurred indoors (Illegal, at last, 2009; Arditi, 2009).

Cunningham and Shah make an error when they claim that prostitution was decriminalized in 2003 (Cunningham & Shah, 2014, 2018). They write that a “Rhode Island District Court judge unexpectedly decriminalized indoor prostitution in 2003.”5 This is an error they attributed to an error in a Providence Journal news article (Arditi, 2009). Arditi, the author of the news article, is thanked in the acknowledgments of Cunningham and Shah’s article. After the Cunningham and Shah paper was released in 2014, Arditi wrote two articles for the Providence Journal repeating the findings of the paper that rape and gonorrhea were reduced by decriminalized prostitution (Arditi, 2014a & 2014b).

The most significant point of reviewing the history of the decriminalization of prostitution in Rhode Island is that Cunningham and Shah relied on erroneous

5 Cases involving prosecution of people without a precise statute defining the offense has an interesting history in Rhode Island, but beyond the scope of this paper.
newspaper reporting in 2009 about the historic events and legal actions of 1976, 1980, and 1981 to choose the time frame for their analysis.

Consequently, Cunningham and Shah used the year 2003 as the initiation of decriminalization of prostitution. Since prostitution was recriminalized in 2009, Cunningham and Shah set 2003 to 2009—a six-year period for their analysis of decriminalized prostitution. This short period of time leaves out data from the previous 23 years. This decision to ignore 23 years of data profoundly influences their findings.

**Incidence of Rape**

The most media attention-getting finding in the Cunningham and Shah paper is that decriminalization caused the incidence of rape to decrease.

Although the Rhode Island data is more variable than the national data, it generally follows the same trend, with the exception of the rate of rapes for the year 2003. (See Figure 1.)

![Figure 1: Rate of Rape in Rhode Island and the United States, 1998 to 2012.](http://www.fbi.gov/about-us/cjis/ucr/ucr-publications#Crime)

In 2001 and 2002, there were 39.3 and 36.9 rapes per 100,000 people in Rhode Island. However, in 2003—there were an unusually high number of rapes reported—49.9 per 100,000 people. (The data was confirmed by the Rhode Island State Police Uniform Crime Reporting Program. To further investigate the accuracy of this number would require canvassing all the police departments in the state of Rhode Island to check their records.) The next year, 2004, the number dropped to 29.9 per 100,000. After that year the Rhode Island rate of rape resumes a more consistent yearly variability and tracks the national average. This spike in reported rapes for one year in Rhode Island created an outlier in the data.

An outlier is a data point that is far outside the normal range and trend of the data. Cunningham and Shah use the year 2003—the outlier data point—to begin their time frame of analysis of rape based on their erroneous assumption that 2003 was the date that prostitution was decriminalized in Rhode Island.
Even a simple visual inspection of the data plot shows that starting with the 2003 outlier data point results in a steep decline in the incidence of rape between 2003 and 2009. Further inspection of the data plot shows that the incidence of rape in Rhode Island had started to trend downward in 1999.

Cunningham and Shah have used a highly unusual year that included a high number of rapes to start their analysis. It is not hard to see how that distortion of the yearly trends provided Cunningham and Shah an excellent finding of a decline in rape from 2003 to 2009.

**Incidence of Gonorrhea**

Cunningham and Shah reported that the incidence of gonorrhea declined in Rhode Island during decriminalization, which they claimed was between 2003 to 2009. (See Figure 2.) A visual inspection of the data plot shows that gonorrhea did decline steadily from 2003 until 2009 as Cunningham and Shah find. However, the data from 1970 to 2014 also show a much higher incidence of gonorrhea from the mid-1970s until the late 1990s, when the incidence plummeted compared to the incidence in the mid-1970s.

So, while the incidence of gonorrhea did decline during the short six years of the Cunningham and Shah’s analysis period, a wider view of data from 1970 to 2014 shows that over a four-decade period, gonorrhea has significantly increased and decreased.\(^6\)

---

\(^6\) It is likely the increased public health problem of HIV and AIDS and the resulting increase in condom use contributed more to the large decline over this four-decade period. But that is beyond the scope of this paper.
We see Cunningham and Shah’s selective choice of 2003 to 2009 is a short time period that is out of context to the wider trends over time. This analysis of this short period of time did produce a strong result, but one that is likely an artifact.\(^7\)

One could say that there is still an interesting reduction in sexually transmitted disease from 2003 to 2009. Therefore, the researchers decided to examine another sexually transmitted disease to see if there was a trend that followed the decriminalization of prostitution.

**Incidence of Chlamydia**

If decriminalization of prostitution resulted in a decrease in gonorrhea, then one would expect a similar trend with other sexually transmitted diseases. Data on the number of cases chlamydia in Rhode Island from 1985 to 2014 was used to visually inspect the trends over time. Figure 3 shows an overall increase in chlamydia over this three-decade period. Furthermore, there is no overall reduction in the number of cases of chlamydia from 2003 to 2009; nor is there a slowing of the increase during the time period during which Cunningham and Shah claim that decriminalization of prostitution resulted in a reduction in sexually transmitted disease, particularly gonorrhea.

![Figure 3: Number of Cases of Male and Female Cases of Chlamydia in Rhode Island, 1985 to 2014](image)

\(^7\) From the mid-1980s, there were many public health campaigns aimed at increasing condom use. As the reported numbers of HIV increased, there would be renewed campaigns to urge condom use. It is unknown how these campaigns may have influenced the rate of gonorrhea.
If Cunningham and Shah want to claim that decriminalization of prostitution reduced sexually transmitted diseases, then they can’t only report on the one—gonorrhea—that trended in the direction that favors their hypothesis that decriminalization is good for public health (2014).

Discussion

This analysis of legal documents from the 1970s and 1980s reveals the serious conceptual error made by Cunningham and Shah. Prostitution, if it occurred indoors, was decriminalized in 1980, not 2003, as erroneously reported in a Providence Journal article and used by Cunningham and Shah. 8

Legislative attempts to curb prostitution began in 1995 (Assembly Journal, 1996; MacKay, 1997) and continued with “close the loophole” legislation in 2006. The decriminalization of indoor prostitution was not widely known by the general public in Rhode Island until the push to recriminalize prostitution occurring starting in 2005-2006. Although it can’t be proven at this point, it is likely that lawyers for the increasing number of massage parlors and strip clubs knew that prostitution, if occurring indoors, was not illegal, and made it available to patrons.

According to former Representative Joanne Giannini, the chief sponsor of three pieces of legislation to end sexual exploitation in Rhode Island, including the bill to recriminalize prostitution, the decriminalized status of indoor prostitution was known for a long time. There was resistance to changing the law because people were making money from prostitution and there were powerful people buying sex in these venues (Giannini, 2019).

Cunningham and Shah’s puzzling decision to begin their analysis of data in 2003 allows them to claim that decriminalization of prostitution resulted in a reduction in rape and gonorrhea. Cunningham and Shah employed complicated statistical models to arrive at their findings; however, simple plots of data visually demonstrate that there are strong trends and data outliers that contradict their claims.

ACKNOWLEDGMENTS

The authors thank the following people for their time and expertise to review this article: Kezban Yagci Sokat, Adjunct Professor, Industrial Engineering and Management Sciences (IEMS), Northwestern University, USA, and Joanne Giannini, former State Representative, General Assembly, Rhode Island, USA.

AUTHOR BIOGRAPHIES

Lily Lachapelle graduated from the University of Rhode Island in 2018 with a B.A. in psychology and women’s studies and a minor in Arabic. She is self-employed in Rhode Island.

8 There were legal cases between the mid-1990s and 2003 that brought increasing attention to the decriminalization of prostitution and how law enforcement was using loitering for indecent purposes. However, discussion of those cases is beyond the scope of this paper.
Clare Schneider graduated from the University of Rhode Island in 2017 with a B.A. in Political Science. She currently works as a behavioral specialist in Rhode Island.

Melanie Shapiro opened the Law Office of Melanie Shapiro in 2014. She represents clients from 60 countries. She is licensed to practice law in Massachusetts, in the Federal District Court of Massachusetts, in Immigration Court, the Board of Immigration Appeals, and the First Circuit Court of Appeals. She completed her Juris Doctorate at Roger Williams University School of Law, where she was a Public Interest Scholar. Attorney Shapiro graduated from University of Rhode Island summa cum laude with a Bachelor’s Degree in Women’s Studies. She received the Robert A. Rainville Leadership Award, the President’s Award for Academic Excellence, and the Mother Jones Award. In 2014, Attorney Shapiro was named as a Pro bono Star by the American Immigration Lawyers Association. She is a member of the American Immigration Lawyers Association. She has been named a Rising Star by Super Lawyers.

Donna M. Hughes, Ph.D. holds the Eleanor M. and Oscar M. Carlson Endowed Chair in Women’s Studies, and she is a professor of women’s studies and criminology and criminal justice at the University of Rhode Island. In 2018 she was awarded the College of Arts and Sciences Annual Research Award. She is a member of the board of directors of the National Center on Sexual Exploitation.

RECOMMENDED CITATION
Available at http://digitalcommons.uri.edu/dignity/vol4/iss3/6

REFERENCES


COYOTE yelps in court, but few are likely to listen (Editorial). (1979, September 28). *The Providence Evening Bulletin*.


Giannini, Joanne. (2019) Personal communication to Donna M Hughes.


