

# Examining Public Opinion on Climate Change Among Wisconsin College Students and Adults



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## **Students**

**Elora Leene, Emy Marier and Wes Meives**

**Faculty Mentor**

**Eric Jamelske**

[jamelsem@uwec.edu](mailto:jamelsem@uwec.edu)

**University of Wisconsin-Eau Claire**

**Economics Department**

**Chippewa Valley Center  
for Economic Research and Development**



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## ABSTRACT

Climate change is an important and divisive national and international policy issue. The United States and China are of particular interest in the discussion on climate change because they are the world's two largest emitters of greenhouse gases. As such, meaningful global action to address climate change must involve both China and the US. Thus, a better understanding of how US and Chinese citizens view climate change is of great interest.

We conducted surveys of adults and college students in the US and China to broaden our understanding of climate change public opinion in these two countries. This poster presents results from a subset of these data examining views of Wisconsin adults and college students.

## INTRODUCTION

Despite overwhelming scientific consensus, many Americans misunderstand the realities of climate change and its causes. Moreover, research has revealed significant political divisions over climate change with conservatives more likely to be skeptical.

The following quotes from the 2012 presidential race highlight this division:

"More droughts and floods and wildfires are not a joke. My plan will continue to reduce the carbon pollution that is heating our planet because climate change is not a hoax." -Barack Obama

"Do I think the world's getting hotter? I don't know, but I think it is, but I don't know if it's mostly caused by humans. What I'm not willing to do is spend trillions of dollars on something I don't know the answer to." -Mitt Romney

The reality is that politics and special interests as well as a misunderstanding of climate science are preventing action to address one of the most pressing issues the world has ever faced.

This political divide is also evident in Wisconsin politics as shown by the following statements from our two current US senators.

"Extreme weather phenomena are better explained by sunspots than an overload of carbon dioxide in the atmosphere. I absolutely do not believe in the science of man-caused climate change, it's not proven by any stretch of the imagination." -Ron Johnson

"The question is not whether climate change is occurring, but how our nation is going to respond to it. I look forward to giving Wisconsin a voice to our nation's response on this important issue." -Tammy Baldwin

The preceding descriptions set the tone for the climate change debate both nationally and in Wisconsin. We now describe our methodology and then present some results from our survey of adults and college students in Wisconsin.

## METHOD

We conducted online surveys of Wisconsin college students between September and November 2013. The college sample consists of 838 students recruited from classes at two University of Wisconsin System schools. The surveys were conducted in 20 classes taught by 12 professors. Overall, 1,260 students were offered the survey yielding a response rate of 66.5%.

The average age in the college sample was 19.1 years old with 46.0% freshmen, 30.7% sophomores, 17.9% juniors and 5.4% seniors. In terms of gender and race/ethnicity, 46.6% of respondents were male and 53.4% were female, while 91.5% of respondents identified as white. The most common major area of study reported by respondents was business/finance (49.9%) followed by other/undeclared (21.3%). About half of potential college student participants were offered extra credit by their professor as an incentive to participate.

We also conducted online surveys of Wisconsin adults over the same period. The adult sample consists of 311 adults recruited through two different methods. First, a postcard mailing from 3,000 random addresses purchased from Survey Sampling International. Second, a newspaper article announcing the survey and asking people to participate. The estimated response rate from these combined processes was approximately 7%. The average age in the adult sample was 48.5 years old.

In terms of gender and race/ethnicity, 57.4% of respondents were male and 42.6% were female, while 91.4% of respondents identified as white. All potential adult participants were offered the chance to be entered in a drawing to win one of three \$50 Visa gift cards as an incentive to participate.

The college sample is not random, but rather it is a convenience sample arranged at universities through contacts known to the authors. The low response rate for adults also raises the issue of bias from a non-random sample. Therefore, our results may not generalize to adult and college student populations statewide. That said, this information provides valuable insights in understanding how Wisconsinites view climate change.

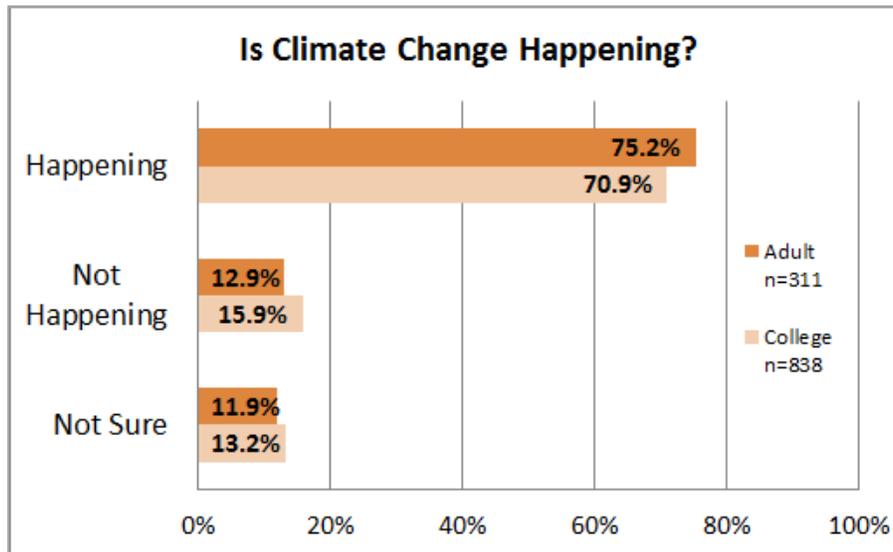
All survey materials and procedures were approved by the University of Wisconsin-Eau Claire Institutional Review Board. Many of the questions used for this survey were adapted with permission from surveys conducted by the Yale Project on Climate Change and the George Mason University Center for Climate Change Communication.

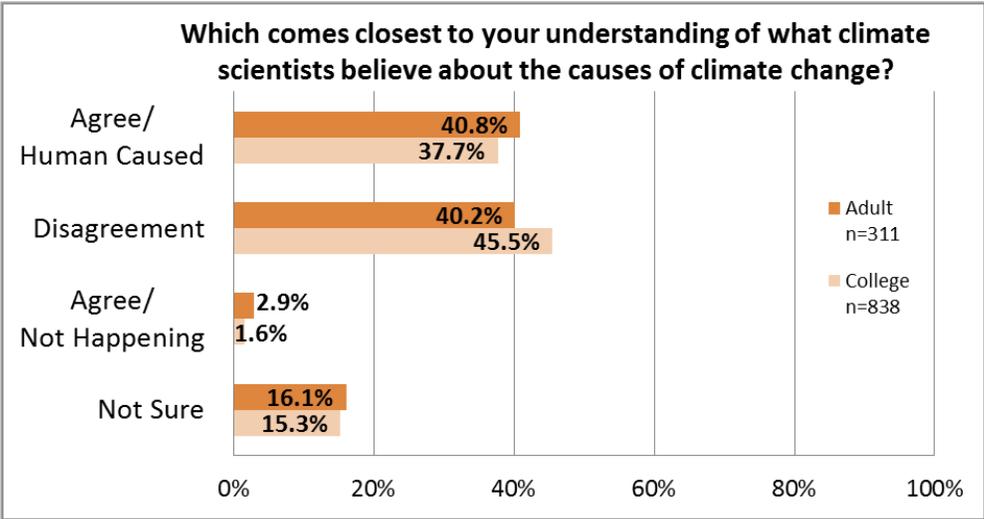
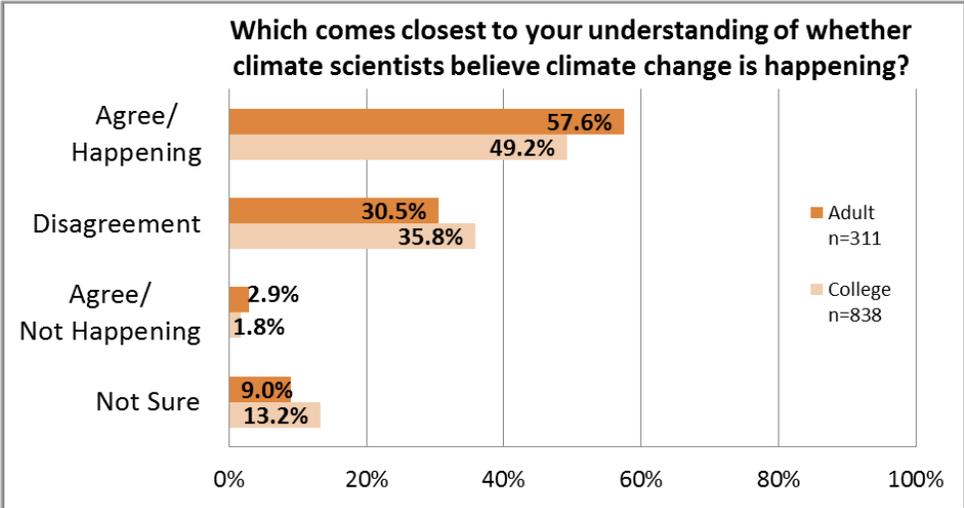
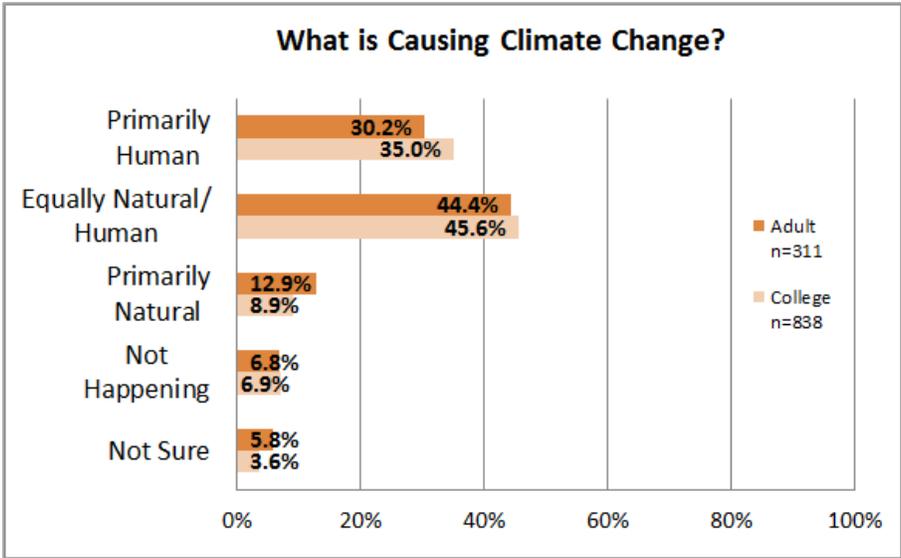
## RESULTS

### Is it Happening

Previous research shows the majority of Americans believe climate change is happening, but there is resistance to the idea that human actions are the primary cause. Our results are consistent with these findings. About three-fourths of Wisconsin adults (75.2%) and college students (70.9%) say they believe climate change is happening. However, only about one-third of college (35.0%) and adult (30.2%) respondents say they think human actions are the primary cause.

Our results also echo the findings of a misunderstanding of the scientific consensus on climate change found by other researchers. Specifically, 40.2% of adults and 45.5% of college students in Wisconsin report thinking there is significant disagreement among climate scientists regarding the reality of anthropogenic climate change.

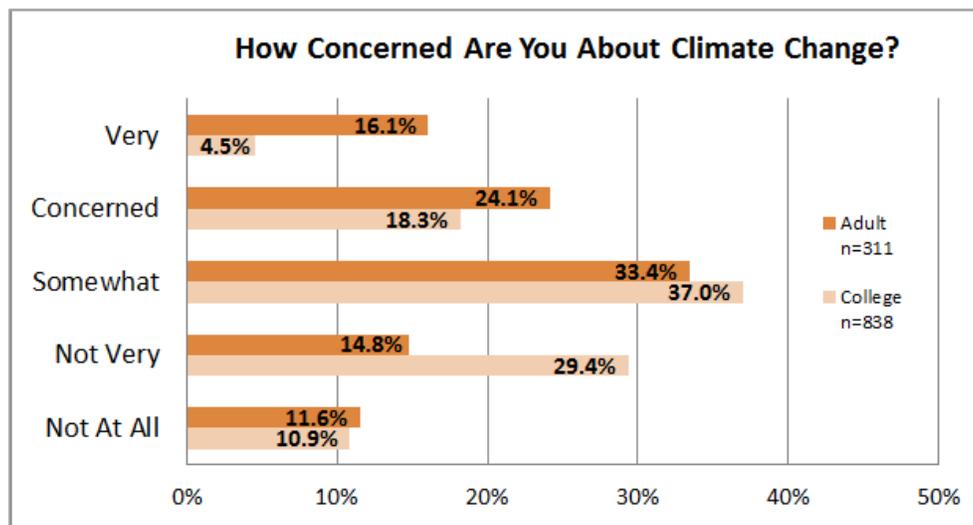
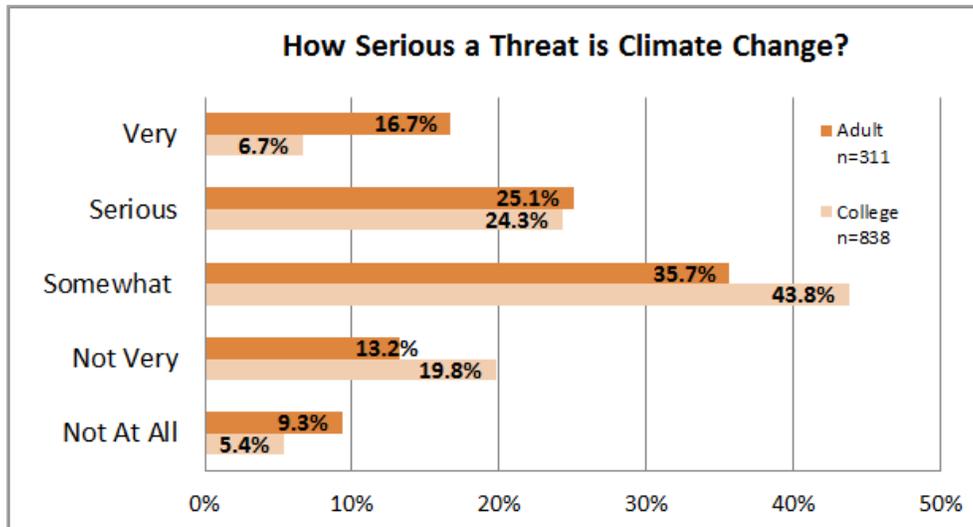




## Threat and Concern

Given these misconceptions it is not surprising that previous surveys also show many Americans do not perceive climate change as a serious threat, nor are they very concerned about it.

Once again our Wisconsin results reflect a similar story as just over 40% of adults report being very concerned (16.1%) or concerned (24.1%) about climate change. Wisconsin college students show even less concern about climate change with less than one-fourth of respondents reporting they are very concerned (4.5%) or concerned (18.3%).

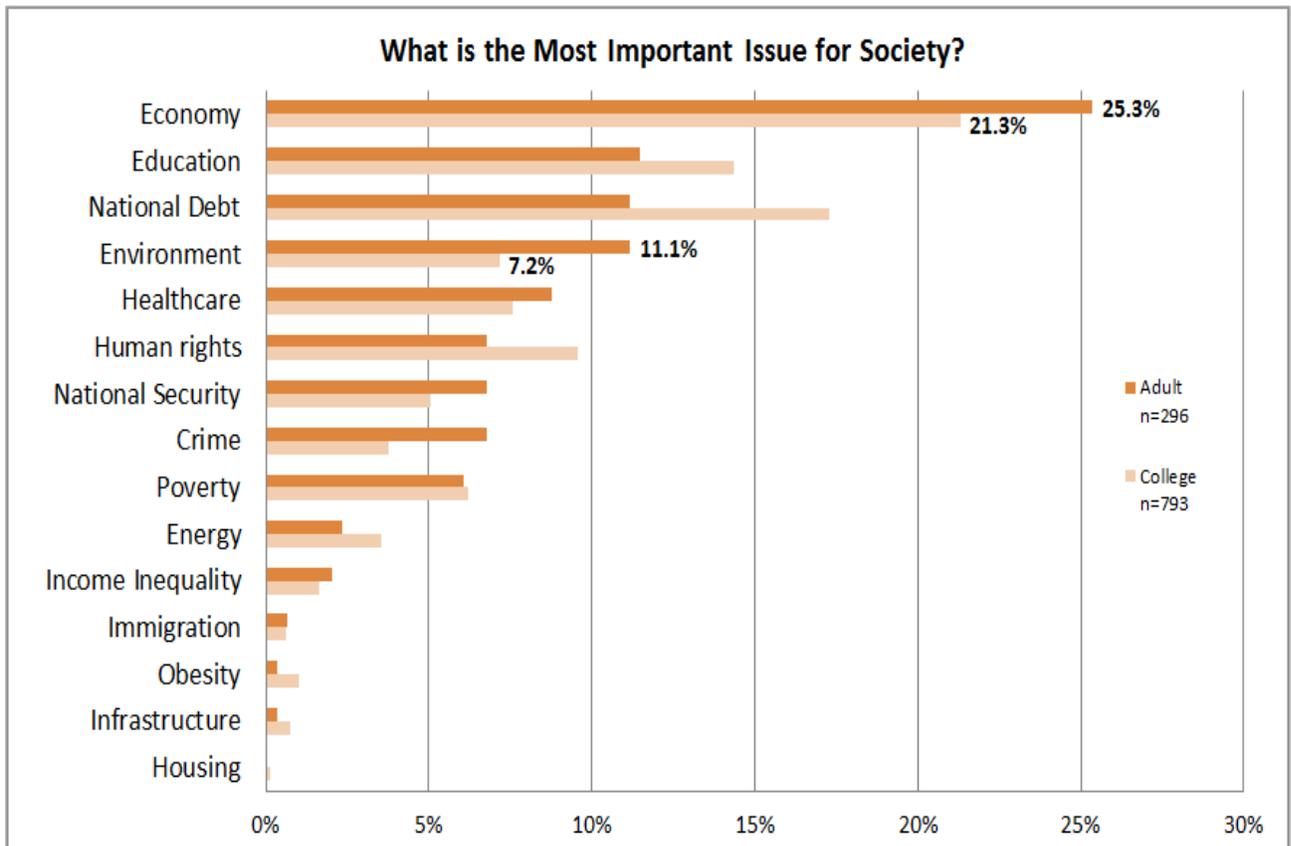


## Social Issues

Polling of Americans on what our top priorities should be always show the economy ranked at the top.

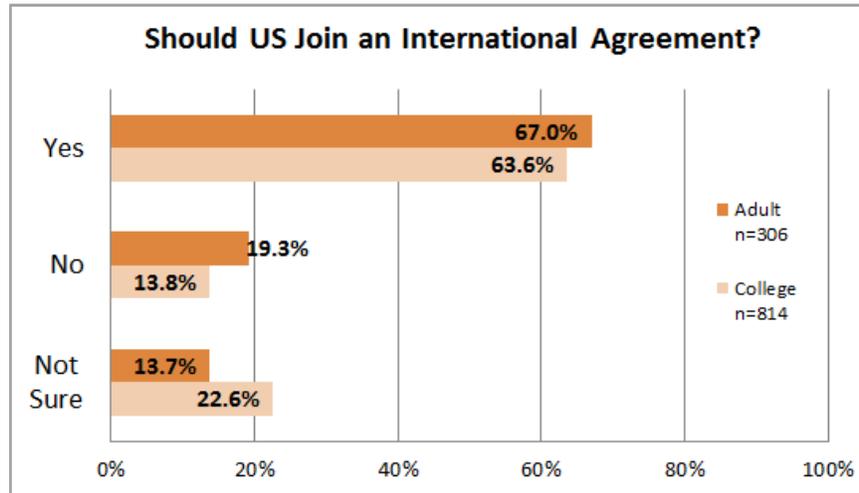
Similarly, the economy was the most frequent choice of both Wisconsin adults (25.3%) and college students (21.3%) when asked to select the most important issue for our society to address from a list of 15 items.

In contrast, the environment tied for the third most important issue among adults (11.1%), while it was the sixth most important issue for college students (7.2%).



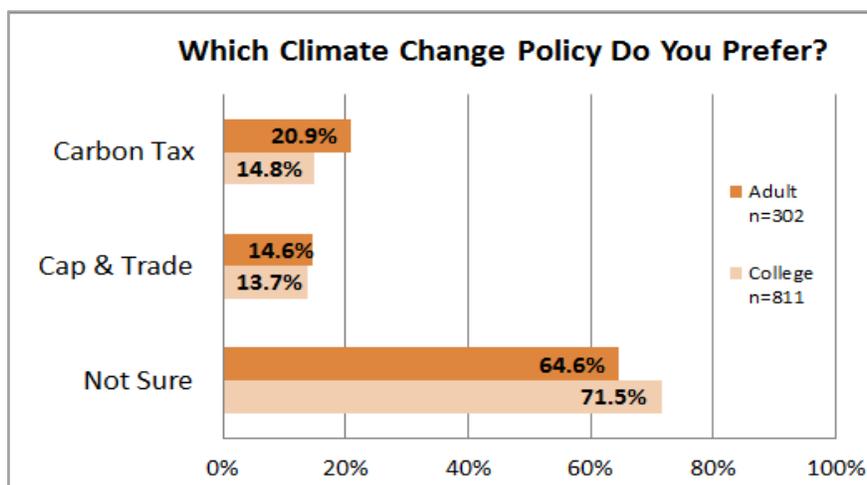
## Action

Despite the misunderstanding and debate about climate change among Americans, including Wisconsinites, previous research shows relatively strong support for US action in the international arena. This support also exists in Wisconsin as approximately two-thirds of adults (67.0%) and college students (63.6%) say they think the US should join an international agreement to address climate change.



## Policy

That said, our results for Wisconsin suggest little familiarity with important policies such as cap and trade or a carbon tax. As a result, a significant majority of adults (64.6%) and college students (71.5%) report being unsure which of these two policies they prefer.



## Willingness-to-Pay

All policies to address climate change will involve putting a price on emissions, and thus will result in a higher cost of goods and services such as transportation, energy, food etc.

In this context, support for policy action is mixed among Wisconsinites. Across college students and adults, approximately 25% of respondents are not willing to pay an additional \$20 a month in living expenses to support climate change action, while approximately 22% were willing to pay at least \$60.

Overall, college students are less willing than adults to pay for climate change action.

<b>Wisconsin Willingness to Pay (WTP) Added Cost of Living for Climate Change Policy</b>				
<b>Adult (n=99)</b>		<b>College (n=270)</b>		<b>Initial Value = \$20</b>
32	32.3%	72	26.7%	Not WTP \$10 /month
10	10.1%	60	22.2%	WTP between \$10 and \$20 /month
25	25.3%	66	24.4%	WTP between \$20 and \$40 /month
32	32.3%	72	26.7%	WTP at least \$40 /month
<b>Adult (n=107)</b>		<b>College (n=269)</b>		<b>Initial Value = \$40</b>
35	32.7%	88	32.7%	Not WTP \$20 /month
17	15.9%	74	27.5%	WTP between \$20 and \$40 /month
27	25.2%	69	25.7%	WTP between \$40 and \$80 /month
28	26.2%	38	14.1%	WTP at least \$80 /month
<b>Adult (n=99)</b>		<b>College (n=272)</b>		<b>Initial Value = \$60</b>
42	42.4%	115	42.3%	Not WTP \$30 /month
12	12.1%	60	22.1%	WTP between \$30 and \$60 /month
23	23.2%	66	24.3%	WTP between \$60 and \$120 /month
22	22.2%	31	11.4%	WTP at least \$120 /month

## CONCLUSION

The results of our survey on the views of Wisconsin adults and college students are consistent with the findings of other researchers regarding US public opinion on climate change. On one hand, it is good to know that Wisconsin fits in with the rest of the nation.

On the other hand, it is troubling that Americans of all ages do not understand the scientific consensus on the realities of anthropogenic climate change. In particular, The Intergovernmental Panel on Climate Change states “...the warming of the climate system is unequivocal...” and “...most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed

increase in anthropogenic GHG concentrations.” Additionally, reviews of the climate literature indicate striking agreement (over 95%) with the IPCC assessment.

This poster highlights the views of Wisconsin citizens regarding the existence and causes of climate change as well as possible policies to address climate change. Our larger research project aims to describe public opinion on climate change both nationally and internationally and raise awareness about the misconceptions regarding climate change among the American public.

By presenting and publishing our results we hope to stimulate discussion, advocate for an end to political gridlock and push for meaningful policy action to address climate change.

\*\*Although not shown in this poster, regression analysis confirms the findings of other national studies; political ideology is a significant contributing factor to the division regarding climate change views among our Wisconsin sample.

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