

SILVER STATE-ISTICS



Nevada Chapter of American Statistical Association

Nevada Chapter Newsletter

Vol. 17 No. 3

Dear Nevada ASA Members and Friends,

Read on for information on what our Chapter has been up to and what we are planning for the future. Please keep an eye on our website for more details on upcoming events.

https://community.amstat.org/nevadachapter/home

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🗷 Coming Events 🗷

Our **Annual Meeting** will take place on-line this coming Fall. It's tentatively scheduled for Saturday, October 3. Stay tuned for announcements of this and other events.

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Elections

Four positions will be open for terms beginning January 1, 2021: President, Southern Vice President, Secretary, and Treasurer.

The President's Corner Christopher Tong

Despite COVID-19, your chapter has been busy. We held our first-ever virtual symposium in April, "Census Data and Coronavirus Modeling"; you can read about it later in these pages. Each of your Executive Committee members pitched in to make the event a success. Alejandra Livingston volunteered to be a speaker, and Gayle Allenback recruited Prof. Brian Labus as our second speaker. Shar Chaudhry set up the Eventbrite registration system, and Glenn Waddell and Alicia Hansen served as Zoom co-hosts, moderating the event itself. Charles Davis promoted the event in the newsletter and through the mailing list. We also received pro bono assistance on the graphic design of the event flyer from Stephanie Monasterio.

Entries for the K-12 poster competition were trapped at Durango High School for some time, but the judging was completed (virtually) in June. You will find the delightful winning posters in these pages. We are tremendously grateful to Tia Price for leading this initiative for a number of years, including this most challenging one, and we congratulate her on her retirement. Thank you, Tia!

To simplify planning for the fall Annual Meeting, originally planned for Las Vegas, the Executive Committee has decided to host another virtual event instead. The success of the spring symposium was very encouraging in this regard.

We need volunteers for open officer positions. Our stalwart colleague Shar Chaudhry is relocating to Arizona, but has graciously agreed to serve out his term through the end of this year. We'd like one of you readers to run for Southern Vice President this fall! I too will be stepping down at the end of this year. Take my job...please! Seriously, reach out to our Past President Alicia Hansen as soon as possible if you are interested in any of our open officer positions next year. We truly need your help.

NV-ASA Spring Virtual Symposium: Processing the Decennial Census for Group Quarters

Our state-wide Virtual Symposium took place Saturday, April 25, via Zoom. The first speaker was Alejandra Livingston, Economist III with the NV Department of Corrections and NV-ASA Treasurer. Her title was "Processing the Decennial Census for Group Quarters Nevada Department of Corrections Facilities (NDOC)".

Alejandra first reminded us of the requirements of the Census that every person must participate; data were to be as of the Census Date April 2, 2020. She then described the special process used by the Census Bureau for persons living in Group Quarters (GCs) such as nursing homes and correctional facilities. In normal times there would be five options, and facilities were preparing accordingly. However, when Covid-19 struck only the eResponse option remained.

Actually applying the process to the correctional facility population presents numerous challenges. Some of these include the realities that the prison population is quasifluid. Officers change shifts, inmates are admitted or released in the morning, are transported to local hospitals for medical emergencies or to court hearings, work outside the facility for the day or a portion thereof, or possibly die. These can all affect the fundamental concept of who is (resides) where on Census Day. Alejandra described these challenges and the responses that NDOC developed to respond to them (and still obtained the required data) in interesting detail.

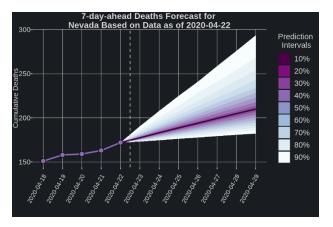
NV-ASA Spring Virtual Symposium: Coronavirus Modeling

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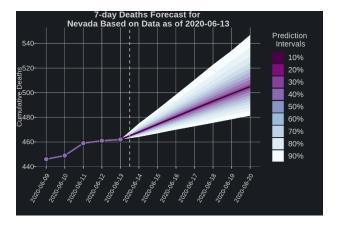
Our next presentation was "When Bad Models Happen to Good People: Making Sense of the Coronavirus Numbers", by Brian Labus, UNLV School of Public Health and member of Gov Sisolak's scientific advisory panel on Covid-19. He described the S→E→I→R compartment models used in epidemiology, with S being "Susceptible", E being "Exposed", I being "Infectious", and R being "Recovered", except that an alternative for the last compartment is D ("Dead"). These have rates of progression among them, and the E and I compartments can have multiple sub-compartments.

Brian showed us several published models. All models are in evolution, of course, as understanding of the functioning of the virus and available data increase.

One of the model predictions he showed us was from the Los Alamos National Laboratory (LANL), dated April 22, 2020 (a few days prior to our event).



The median 7-day prediction was for ~211 deaths in NV by April 29. The actual number reported then was 230, around the 80th percentile of the LANL prediction. For comparison, here's the LANL plot as of June 13. The median prediction is for 504 deaths in NV by June 20. Elsewhere on the LANL website, their median prediction for July 25 is for 660 deaths in NV (90% prediction interval 530-1000).



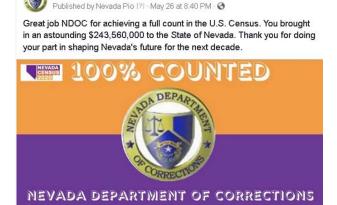
One of Brian's early slides shows a story from *Bloomberg Opinion* (by Noah Feldman, April 2, 2020). His slide heading is "Who's Writing the Models", and the article title is "The Real Reason Epidemiologists and Economists Keep Arguing: They're Trained to Think Differently." The article starts as follows. "It's not only factories that can't retool overnight to meet the Covid-19 pandemic. Our brains can't, either. The way we think and the things we think about follow patterns that are capable of evolution and change — just not that fast." So it's not a surprise that one hears different advice from folks whose expertise is in different areas, with the economists being more willing to deal with trade-offs.

Brian finished with a relevant cartoon, reproduced at the end of this Newsletter.

More on the Census

Here's a Facebook "shout-out" to the success that NDOC had in implementing the Census.

Nevada Department of Corrections



At its Annual Meeting in October 2014 NV-ASA hosted a round-table discussion on Statistical Errors, prompted by "P values, the 'gold standard' of statistical validity, are not as reliable as many scientists assume" by Regina Nuzzo (Nature v. 506, 13 February 2014, 150-152). Among the issues discussed was the concept of "statistician shopping", the idea of looking for a statistician who can view (manipulate?) data to support a desired conclusion. Some of the things we're seeing these days, as Brian discussed in his presentation, are reminiscent of this.

One in particular comes to mind, which is the case of former Florida Data Analyst Rebekah Jones. As reported on NPR June 14, she says she was fired after refusing to manipulate COVID-19 data to support reopening agendas. One issue is the fact that a person testing positive would be counted once, whereas persons with multiple negative tests would be counted as many times as tested. Since those in certain professions are tested repeatedly, the test positive rate is lower than the person positive rate. She is now hosting her own portal; this is a reflection of how contentious coronavirus data (and modeling) has become amid battles over the states' reopening. Florida officials have rejected her assertions.

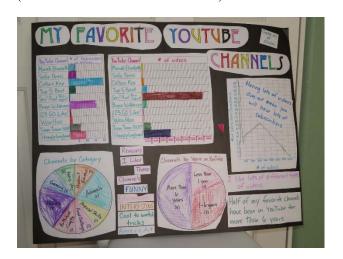
Poster Competition 2020

Our 17th annual K-12 Statistics Poster Competition was held this year under the leadership of Tia Maria Price, math teacher at Durango High School. Grade categories are K-3, 4-6, 7-9, and 10-12. 225 posters were submitted by 358 student participants from 16 schools. First, Second, and Third prizes were awarded in each category along with 3 Honorable Mentions. All recognized posters are forwarded to the National ASA Competition.

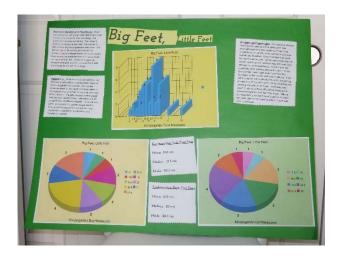
Once again, we thank the Southern Nevada Mathematics Council for their generous support of this competition, and we thank all those who participated in organizing and judging the competition. Here are our state winners. Images of the winning posters are on our website.

K-3

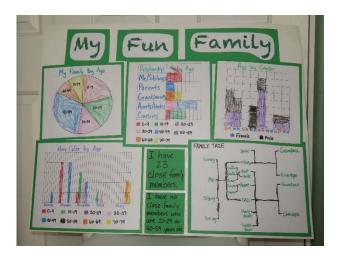
First place: Michaela Hansen, 3rd grade, Chansen Academy, Carson City. *My Favorite YouTube Channels* (advisors: Alicia and Michael Hansen)



Second place: Zachary Dunn, Luca Herrera, and Mason Manhute, 3rd grade, Scherkenbach Elementary School, Las Vegas. *Big Feet, Little Feet* (advisor: Kathleen Walsh)

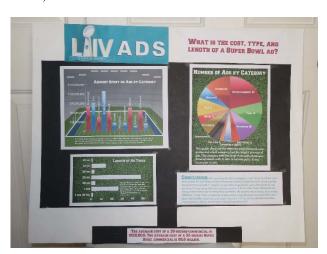


Third place: Tristan Hansen, 1st grade, Chansen Academy, Carson City. *My Fun Family* (advisors: Alicia and Michael Hansen)

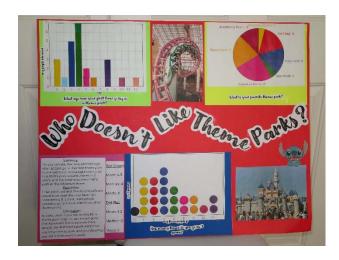


4-6

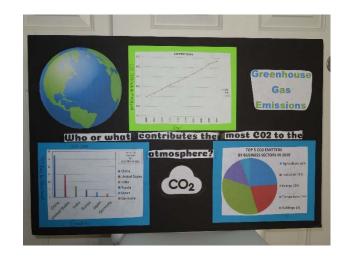
First place: Andrew Stroud, 6th grade, Hyde Park Middle School, Las Vegas. *Super Bowl LIV Ads* (advisor: Judy Kraus)



Second place: Sierra Snow, 6th grade, Johnson Academy of International Studies, Las Vegas. *Who Doesn't Like Theme Parks?* (advisor: Sulayla Arnett)

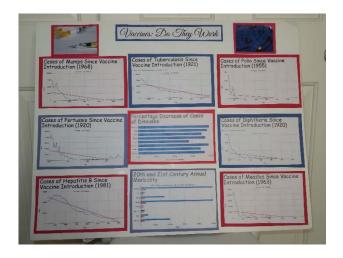


Third place: Seth Burrell, 6th grade, Lied STEM Academy, Las Vegas. *Greenhouse Gas Emissions* (advisor: Elizabeth Harris)

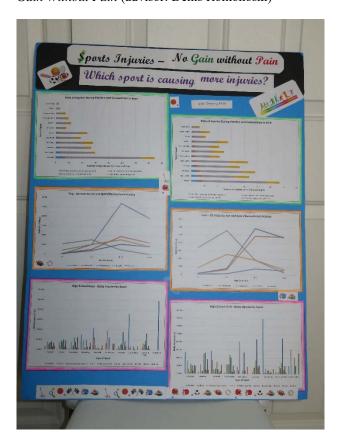


7-9

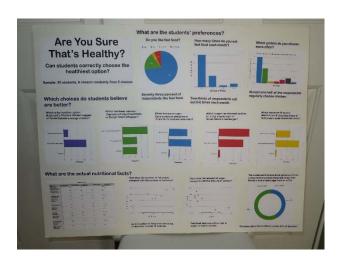
First place: Jackie Chau, 7th grade, Hyde Park Middle School, Las Vegas. *Vaccines: Do They Work?* (advisor: Denise Romonoski)



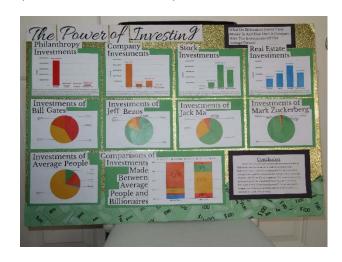
Second place: Pranav Teja Kalakota, 7th grade, Hyde Park Middle School, Las Vegas. *Sports Injuries – No Gain Without Pain* (advisor: Denis Romonoski)



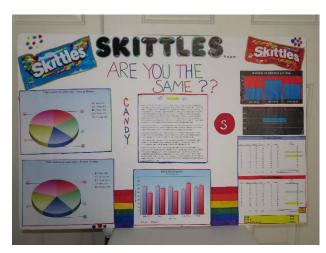
Third place: Charlie Kolodny, 7th grade, Southern Highlands Preparatory School, Las Vegas. *Are You Sure That's Healthy* (advisor: Susan Kolodny)



Honorable Mention: Sheng Yang Wu, 7th grade, Hyde Park Middle School, Las Vegas. *The Power of Investing* (advisor: Denise Romonoski)

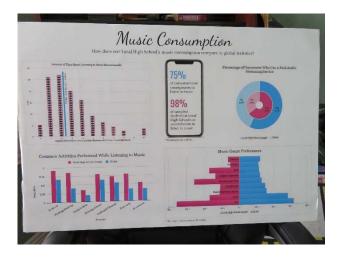


Honorable Mention: Jon Sand, 7th grade, Southern Highlands Preparatory School, Las Vegas. *Skittles: Are You The Same?* (advisor: Susan Kolodny)

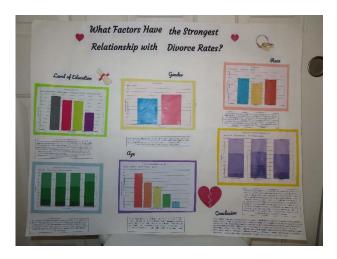


10-12

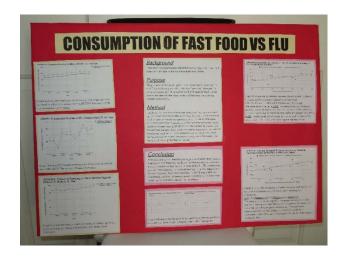
First place: Sarah Crockett, Sheldon Skoboloff, and RaeAnne Zobel, 12th grade, Coronado High School, Las Vegas. *Music Consumption* (advisor: Amy Leonard)



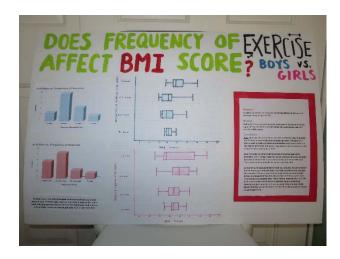
Second place: Sara Moon and Stephania Torres, 12th grade, Coronado High School, Las Vegas. *What Factors Have the Strongest Relationship with Divorce Rates?* (advisor: Amy Leonard)



Third place: Jenna Wang, 12th grade, West Career and Technical Academy, Las Vegas. *Consumption of Fast Food vs Flu* (advisor: Kylie Perry)



Honorable Mention: Hannah Hu, 12th grade, West Career and Technical Academy, Las Vegas. *Does Frequency of Exercise Affect BMI Scores?* (advisor: Kylie Perry)



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Only a minority of the people who receive this newsletter are members of the Nevada Chapter of the American Statistical Association (NV-ASA). Dues are nominal. For full-time students at NV institutions, the cost is \$10 per year (\$2 for student members of the national ASA). Otherwise, it is \$20 per year (\$10 for members of the national ASA). One can become a Life Member for \$100. You can join NV-ASA when you renew your national ASA membership (or join for the first time); this can be done on-line at www.amstat.org/chapters.

Otherwise, whether a national ASA member or not, you can join through PayPal on our website or by contacting our Treasurer Alejandra Livingston. Any way you do it, please obtain an information form from our website, complete it, and send it to Alejandra at the address listed on the form.

Why should you join? NV-ASA events provide opportunities for networking and contact with other statisticians working in a wide variety of areas in Nevada. But in addition to that, a major reason is that your dues help support the outreach activities of the NV-ASA including the K-12 Poster Competition and Career Days. Our financial needs are not great, so long as we all pitch in our modest amounts.

NV-ASA Officers & Others

Voting officers are

President: Christopher Tong (2020)
Past President: Alicia Chancellor Hansen

(2020-2021)

Northern Vice President: Glenn Waddell (2020-2021)

Southern Vice President: Sharang Chaudhry

(2019-2020)

Secretary: Charles Davis (2020) Treasurer: Alejandra Livingston

(2019-2020)

Chapter Representative: Gayle Allenback (2020-2022)

Also involved are

Webmaster: Alicia Chancellor Hansen

Poster Competition Lead: Tia Maria Price Newsletter Editor: Charles Davis

Silver State-istics welcomes news items and letters from members and friends of the NV-ASA on matters of interest to the Chapter and the profession. Manuscript or items can be sent as a Microsoft Word document, PDF, or within an e-mail. Silver State-istics is published by the Nevada Chapter of the American Statistical Association.

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