Project Diary: Team Project

Gender pay gap: The Dollar-And-Cents Case: Hidden factors behind the story

Week 1 – Problem Statement Identification

Project – Gender pay gap: The Dollar-And-Cents Case: Hidden factors behind the story	
Team Members	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project Title	Gender pay gap: The Dollar-And-Cents Case: Hidden factors behind the story
Date	04-07-2017
Work achieved this week	We had an internal meeting on this date and everyone came up their own topics of list.
List of Topics chosen for the project	1. Women in education 2. Female foeticides 3. Disaster Management 4. Casino
Challenge	Our focus was to pick the topic for which sufficient dataset is available and to think that what do we want to explore and achieve in the topic. This was a brainstorming exercise. After researching for a day. We made the final selection of our topic.
Final Selection of topic	We conducted voting for choosing the topics and finally decided on "Women in education".
Work planned for next week	Datasets identification for the selected topic and to pick the perspectives of our analysis.

Project plan status (on, ahead, behind)	ON

Project title: Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story	
Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	04-13-2017
Work achieved this week	We decided to do our analysis in the following domains for the selected topic: ● Women in sports ● Women in business (self-employment and otherwise) ● Different fields/industries ● Is there any country still behind in terms of economy because of the education of its women? ● Organizations promoting women education and their impacts ● Effects of the Pay - gap in different countries
Problems encountered	NA
Work planned for next week	Datasets identification

Project plan status (on, ahead, behind)	ON

Project title: Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story	
Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	04-19-2017
Work achieved this week	Meeting with professor. He provided us with inputs like a case of 79 cents a dollar. All the articles which he had suggested and other articles are mentioned in section called "Research" at the end of the diary. Professor liked our topic.
Problems encountered	NA
Work planned for next week	Research about the the topic and find as much dataset as we can find.
Project plan status (on, ahead, behind)	ON

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Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	04-26-2017
Work achieved this week	Mishita - Out of the many data-sets, I found a data-set from census.gov, which was related to women education and I started understanding as the dataset contained many fields such as race,gender, etc.
Problems encountered	NA
Work planned for next week	Nothing new was planned. We used to share our research in the google drive.
Project plan status **(on, ahead, behind)**	OF

Project title: Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story	
Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	05-3-2017
Work achieved this week	There was no meeting. Mishita - I started visualizing my data-set. Also, kept on reading about the articles and started finding the ready-made visualizations for our project.
Problems encountered	We picked to do the analysis for the whole world. But we were not getting data for whole World.
Work planned for next week	Collect as many ready-made visualizations related to topic and push it into google drive.
Project plan status (on, ahead, behind)	ON

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Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	05-09-2017
Work achieved this week	Everybody was busy in their individual project. But Short meeting was conducted and everybody shared their views.
Problems encountered	Some issues were there: Like very few datasets was given for sports. We were in dilemma whether to pick issues like gender discrimination or not.
Work planned for next week	Our goal was to shortlist the topics and start working on them.
Project plan status (on, ahead, behind)	ON

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Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	05-17-2017
Work achieved this week	It was a team lab session. We decided to go further with the hypothesis that" Is women empowerment a reality or a myth? It was not different than our previous selected topic: Women in Education. But we wanted to represent it as a claim.
Professor's comments/suggestions	In alignment with our previous research, Professor gave us some more interesting topics that define women empowerment like: ● Payment ● Healthcare ● Career options and form of requirements of those options ● Check vox video on male vs female scientists and lawyers ● Its contested in every angle so we have to be careful on articles and

	datasets we pick
	• If we were to pick a side then we would be able to sharpen our focus and help us to find data to support our claim. If we find contradicting data then we should revise our claim
	• If we plot this on a lifetime scale - men vs women will have different trends in career paths (women as they grow older their career path grows downwards as opposed to men whose career path grows upward)
	• Compare different countries to back up or prove your claims and that the pay gap is because of development factors and not a natural phenomenon because of other factors
	• Keep your claim as your working hypothesis and adapt as your do your research and data manipulation
Challenges Encountered	Challenge was to search the resources that can get aligned with the professor's expectations.
Project plan status (on, ahead, behind) Work planned for next week	ON

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Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	05-24-2017
Work achieved this week	No work was done. Because Everyone was busy in their individual project.
Problems encountered	NA
Work planned for next week	NA
Project plan status (on, ahead, behind)	OF

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Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	05-31-2017
Work achieved this week	After our individual project submission.We decided to work from home and come up with concrete research.
Problems encountered	NA
Work planned for next week	NA
Project plan status (on, ahead, behind)	OF

Project title: Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story	
Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	06-05-2017
Work achieved this week	We had a meeting with professor. We discussed all the work, we had done in the past week.
Professor's comments/suggestions	- Likes story but doesn't like conclusion - he doesn't want us to take sides. Don't try to prove or disprove anything. just describe. Just give a visual confirmation whether this story holds good or not. - He is asking to look at why women take the jobs they take and what are the characteristics of those jobs that have an effect on indirect gender discrimination leading to the pay gap. - He wants us to be critical of ourselves and include rebuttals for own data - Explain why you picked the four states - give some reasons. Don't imply things that you don't know. - He thinks our analysis is fine. Just be careful of our implications or assumptions - Potential action - get women to take more paying jobs - this would be our

	sort of conclusion of analysis ● Analyze the USA only ● Can use tableau to get pdf data ● And one final workbook in addition to raw workbooks
Our decision after the professor's comment.	Because we realized that we cannot make any claim. We decided to frame it as a case study rather than proving something at the end. We decided to frame it as " a gender pay gap case study"
Project plan status (on, ahead, behind) Work planned for next week	ON

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Team Members Name	Ayesha Ajmal, Mishita Agarwal, Purnima Tripathi, Yuan Cheng, Shuyuan Yang
Project title	Gender pay gap: The Dollar-And-Cents Case:Hidden factors behind the story
Date	06-12-2017
Work achieved this week	Class Presentation

Professor's comments/suggestions	Professor General feedback (for whole class)
	
	   Have an abstract
	  ● include information about where you got the data from
	  ● How many datasets you used
	  ● Try to simplify the charts or accompany the charts with directions on how to read
	● Be mindful of the impression you are trying to make
	● It is perfectly fine to adjust the claims as we go
	● Go through your charts and see if they're in the correct order and in the direction of giving a final punchline
	● Have a roadmap for your project (version 1, version 1.1 etc.,)
	● Sometimes it helps to focus your claim to focus the research/project

Professor feedback for us -	● He liked our story and said that if we are stating what we presented during this class then we are good.

Changes after the presentation	We decided to remove the states wise bar-graph for Wyoming, New York, North Dakota and California. Since our project was not based into digging into states. We wanted to highlight the general trend.
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Date	06-13-2017
Work achieved this week	We decided what is left and the further road map.
Things that were left	- Individual charts in document- Purnima, Mishita, Ayesha, Sherry - Chart explanation - same as above - Include a link/website name of the dataset source for each of the individual charts in the documentation - everyone's responsibility - Compile all the workbooks into one final workbook - Yuan - documentation compilation- Purnima - Video -Ayesha - Project Diary - Mishita - Upload individual RAW workbooks to Google Drive Everyone's role Python cleaning - Ricken
Challenges Encountered	Just to complete everything on time. Yuan did not provide datasource for tennis, he is not reachable on phone
Project plan status **(on, ahead, behind) Work planned for next week**	ON

Meeting	We also had a phone call meeting.

Lastly, we completed our parts and below given is the distribution of the work and the names who have finished that part.

Who Did what ?

Mishita Agarwal	1. Founded the dataset for Occupation. 2. Did data wrangling using Python for the data-set 3. Created 3 visualizations for the Occupation. 4. Write the full documentation for Occupation overview part 5. Created field of degree visualizations, but did not use it. 6. Project Diary 7. Founded the dataset for Average-hourly-earnings 8. Founded the dataset for state-wise pay-gap for New York, California, North Dakota, Wyoming. 9. Contributed in creating slides for class presentation
Ayesha Ajmal	10. Contributed in creating slides for class presentation
Purnima Tripathi	1. Basic Layout of story 2. Finding out the right choice of topics that we covered 3. First raw document to consult with professor and streamlining of story 4. Found datasets from UNDP on gender inequality index, created a visualisation for gender inequality index on world-map, however we did not use it in the last 5. Consulted in data cleaning part of

	education data for New York, California, North Dakota, Wyoming. 6. Created visualizations for tennis. Consulted colour coding to other team member's visualizations. 7. Did analysis for entertainment, dataset for average hourly pay gap 8. Analysis and documentation for Sports and hollywood 9. Documentation: 10. Formatting and grammar check of final document. 11. Github repository 12. Contributed in creating slides for class presentation. Compilation and presentation of slides in class.
Shuyuan Yang	11. Did the data visualization for education in New York, California, North Dakota, Wyoming. 12. Search for the data set of pay gap in entertainment industry. 13. Did the data visualization for the pay gap in entertainment industry. 14. Search for the data set of women-earns-more and women-earns-less. 15. Did the data visualization for women-earns-more and women-earns-less. 16. Contributed in creating slides for class presentation
Yuan	1. Data wrangling and clean with Python script [3 data sets] 2. Combine five Tableau workbooks and public online 3. Create Tennis Prize Money Comparison Dashboard

Research:

Mishita:

1. Forbes article on - Don't Buy Into The Gender Pay Gap Myth, Harvard university students sharing their view:
    We used this article in framing our main hypothesis.
    https://www.forbes.com/sites/karinagness/2016/04/12/dont-buy-into-the-gender-pay-gap-myth/#304e51242596

2. Article providing some very good incites about the employment status of women in USA, despite getting comparatively more degrees than men, they are paid less. This also highlights the condition of hispanic and black women in US(Hispanic women will have to wait until 2248 and Black women will wait until 2124 for equal pay.)
    https://iwpr.org/issue/employment-education-economic-change/pay-equity-discrimination/

2. Data source for the research :
    https://statusofwomendata.org/explore-the-data/download-the-data/
    https://iwpr.org/tools-data/data-for-researchers/status-women-states-data/

3. .Another article - The Simple Truth about the Gender Pay Gap (Spring 2017), it also has some tabular data about earnings ratio and some interesting visualizations.
    http://www.aauw.org/research/the-simple-truth-about-the-gender-pay-gap/

4. . **The narrowing, but persistent, gender gap in pay, more mothers than fathers experience career interruptions:**
    http://www.pewresearch.org/fact-tank/2017/04/03/gender-pay-gap-facts/

5..80 Cents on the Dollar - **Higher education administration is still a man's world if you're measuring pay and position title, women working in administrative positions mostly filled by men did earn relatively more than many of their peers who work in positions largely filled by women**
    https://www.insidehighered.com/news/2017/02/15/gender-pay-gap-persists-higher-education-administrators

6. Canada's pay gap: Women earn 87 cents on the dollar, It gives the numbers of several aspects such as - 47.9 per cent of women were absent from work for involuntary reasons such as illness, disability or parental leave compared to 27.6 per cent of men.
    http://www.ctvnews.ca/business/canada-s-pay-gap-women-earn-87-cents-on-the-dollar-1.3315893

7. Here are six excuses for the gender wage gap you can stop using. - http://time.com/money/4285843/gender-pay-gap-excuses-wrong/

9. *New Pay Equity Bill Introduced -* http://www.pay-equity.org/

10.. *What is the gender pay gap and is it real? The complete guide to how women are paid less than men and why it can't be explained away. Would adjusting the raw gender wage gap to include factors such as education help explain the gap? Maybe it is not as big of a problem as it seems?Why adjusted measures can't gauge the full effects of discrimination ....* http://www.epi.org/publication/what-is-the-gender-pay-gap-and-is-it-real/

11. . *Women working for Phoenix earn 91 cents for every dollar men earn -* http://www.azcentral.com/story/news/local/phoenix/2017/04/07/phoenix-gender-pay-gap-lower-than-average/100090120/
   1. In this article there are some links at the bottom - 10 jobs with the largest pay gap in phoenix , positions where women are not well represented, etc.

12.. Half the sky movement - turning oppression into opportunities for women - information regarding economic empowerment of women - http://www.halftheskymovement.org/issues/economic-empowerment

Purnima Tripathi

Good reads on women empowerment:

http://journals.sagepub.com/doi/abs/10.1177/004908570103100304?journalCode=scha

Professor suggested dollar and cents theory, some good reads on gender pay gap

- http://www.pewresearch.org/fact-tank/2017/04/03/gender-pay-gap-facts/

- https://www.insidehighered.com/news/2017/02/15/gender-pay-gap-persists-higher-education-administrators

Tried to make a rough layout of what our story looks like
Different dimensions through which we can proceed our research:

https://www.bls.gov/opub/ted/2011/ted_20110216.htm

Different datasets related to these dimensions:

https://www.bls.gov/data/

About movies:
http://www.the-numbers.com/

https://fivethirtyeight.com/features/the-dollar-and-cents-case-against-hollywoods-exclusion-of-women/

Harvard undergraduate women study by Forbes:
https://www.forbes.com/sites/karinagness/2016/04/12/dont-buy-into-the-gender-pay-gap-myth/

Professor asked us to look at the dimensions where women chose family over their careers. They want more flexible work hours.
http://www.aauw.org/research/the-simple-truth-about-the-gender-pay-gap/

http://hdr.undp.org/en/composite/GII
Considered Gender inequality as conclusion because in USA unequal pay is dominent and we wanted to conclude on a note that this is not even a metrics considered worldwide for gender descrimination.

http://hdr.undp.org/en/composite/GII

Tennis DAta:
https://cleaningthelines.wordpress.com/2016/03/24/57-analysing-atp-and-wta-prize-money/

https://fivethirtyeight.com/features/u-s-women-are-stronger-in-the-tennis-world-than-u-s-men/

Why are we choosing tennis among other sports

Serena Williams comes at the top in the list of women in sports:

http://www.adweek.com/brand-marketing/meet-30-most-powerful-women-sports-172202/

women involved more in household and kids:
http://www.pewresearch.org/fact-tank/2015/10/01/women-more-than-men-adjust-their-careers-for-family-life/

http://time.com/2895235/men-housework-women/

CEO:
https://www.fastcompany.com/3046855/how-the-10-highest-paid-women-ceos-compare-to-their-male-counterparts

Movie: https://stephenfollows.com/films-make-money-pt2-30m-100m-movies/

Jennifer Lawrence:
http://time.com/4099494/jennifer-lawrence-gender-pay-gap-katniss-hunger-games/

fewer lead roles in movies for female:
http://variety.com/2015/film/news/women-lead-roles-in-movies-study-hunger-games-gone-girl-1201429016/
Try to find out analyzing Education data state wise in USA and its relation to the ration of unequal pay .

http://fortune.com/2017/03/22/pay-gap-wyoming-florida-census/

Who takes the most responsibility of household work.

https://www.theguardian.com/society/2012/mar/10/housework-gender-equality-women

Shuyuan Yang

1. https://research-content.glassdoor.com/app/uploads/sites/2/2016/03/Glassdoor-Gender-Pay-Gap-Study.pdf Demystifying the Gender Pay Gap
2. http://www.investopedia.com/articles/personal-finance/010717/10-jobs-where-women-earn-more-men.asp 10 Jobs Where Women Earn More Than Men
3. **http://www.businessinsider.com/the-only-jobs-where-women-earn-more-than-men-2016-4/#-1** These are the only 11 jobs in the US where women earn more than men
4. https://www.forbes.com/sites/jennagoudreau/2011/03/14/jobs-where-women-earn-more-than-men/2/#65df1946dec1 The 15 Jobs Where Women Earn More Than Men
5. http://money.cnn.com/2016/03/23/pf/gender-pay-gap/index.html Yes, men earn more than women. Except in these jobs
6. https://www.bls.gov/news.release/pdf/ocwage.pdf - Average Hourly Wages
7. MDSC Initiative. *Share of women in films in the United States from 2007 to 2015, by genre*. https://www-statista-com.libproxy.scu.edu/statistics/641275/film-gender-distribution/ (accessed June 6, 2017).
8. Women's Media Center. *Annual earnings of people in film in the United States from 2008 to 2014, by gender (in U.S. dollars)*. https://www-statista-com.libproxy.scu.edu/statistics/696543/film-annual-earnings/ (accessed June 6, 2017).