

Biostatistics 203A – Fall 2023  
Mid-Quarter Project Submission  
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Data Subset Number: 43

**Methods:**

Three datasets: w2007.sas7bdat, w2011.sas7bdat and famidsubset.sas7bdat were used in the analysis using SAS® OnDemand for Academics. The observations used were refined to subsets that only included FAMIDs matching the subset number '43' from famidsubset.sas that were present in both w2011.sas7bdat and famidsubset.sas7bdat. The observations were then separated into two groups: by those respondents who appeared in the 2007 file but not the 2011 file and those respondents who appeared in both the 2007 and 2011 files. Supporting material such as YDS\_2007\_Contents.pdf, YDS\_2011\_Contents.pdf and YDS\_Formats.pdf, were referred to comprehend the contents of dataset and formats.

For the Demographic and Employment Characteristics in 2007 and Demographic Descriptive Statistics in 2007 Tables, the calculations were based on two separate samples, those respondents who appeared in the 2007 file but not the 2011 file and those respondents who appeared in both the 2007 and 2011 files. The Demographic Characteristics Table calculates the frequencies and percentages of the variables gender, education, employment, relationship status, parenthood, job security, and job satisfaction. For the Demographic Statistics Table, age, annual household income, and mental health score variables were used to calculate the frequency, mean and standard deviation. In both tables, missing values were taken into consideration depending on the category.

For Financial Stress in 2007 and 2011 and Employment-Related Concerns about the Future in 2007 and 2011 Tables, the dataset used contained the 2007 and the 2011 datasets and retained only individuals who are present in both datasets. Stress regarding financial obligations and difficulty of paying on time variables were used to calculate the frequency, mean and standard deviation for the Financial Stress Table while only taking into consideration non-missing responses. On the Employment-Related Concerns Table, the variables considered included concerns such as lack of training, financial limitations, job market opportunities, relocation difficulties, health related issues, and transportation problems problems were used to calculate the frequency and percentage across 2007 and 2011.

**Results:**

In the demographic variables for Table 1, there is an increase in female completion by approximately 10%. Therefore, this will lead to a comparison between a predominantly female oriented observation, 57.91%, in 2011 against a more evenly spread audience in 2011. The education level had a more relevant change as individuals with Bachelor's degree or higher showed more participation on the study which can impact the employment variable. The employment rate increased by approximately 4% and job security variable had a decrease of 4% for the "Very secure" category. On the other hand, the distribution of overall job satisfaction experienced a shift. Nevertheless, the categories of positive employment satisfaction still indicate that at least 70% of the population expressed some level of satisfaction with their employment.

In Table 2, The age variable remained consistent between datasets, around 34 years old. A significant change observed was a increase in Annual Household Income by approximately \$7,000 which can suggest economic growth. In terms of Well-being, the Mental Health Score showcased a decrease from 41.29 to 38.24, with higher values indicating worse mental health symptoms. In Table 3, the financial stress variable exhibited a minor increase over the four-year period by 0.02.

Similarly, the difficulty in paying bills increased by 0.11. Meaning that there was an overall increase in financial responsibilities.

In Table 4, different concerns variables between 2007 and 2011 are compared regarding obstacles to their career plan. Concerns regarding acquiring training or degrees notably rose from 12.48% to 17.13%, while funding for education remained relatively stable. Interestingly, feelings of being overqualified saw a increase, rising by approximately 6% to reach 9.31% and worries about job openings increased by 10%. The rest of the variables: relocation, illness, caregiving relatives and transportation, exhibited small increases, suggesting an amplified sense of uncertainty about future employment prospects.

Tables:

Table 1. Demographic and employment frequencies for the sample in 2007 stratified by whether or not the respondent completed an assessment in 2011

<i>Demographic and Employment Characteristics in 2007</i>	Completed an assessment in 2011?			
	No (N =119)		Yes (N =537)	
	n	%	n	%
Gender				
Female	58	48.74	311	57.91
Male	61	51.26	226	42.09
Missing	0	0	0	0
Highest Level of Education				
High School or Less	41	34.45	106	19.74
Technical or Vocational	12	10.08	63	11.73
Some College	39	32.77	159	29.61
Bachelor's Degree	15	12.61	131	24.39
Graduate Degree	7	5.88	60	11.17
Missing	5	4.20	18	3.35
Currently Employed?				
No	18	15.13	74	13.78
Yes	97	81.51	458	85.29
Missing	4	3.36	5	0.93
Currently Married or Cohabiting in an Intimate Relationship?				
No	35	29.41	145	27.00

Yes	80	67.23	384	71.51
Missing	4	3.36	8	1.49
Any Children?				
No	23	19.33	151	28.12
Yes	93	78.15	383	71.32
Missing	3	2.52	3	0.56
	N=97		N=458	
Job Security*				
Not at all secure	5	5.15	17	3.71
Somewhat secure	23	23.71	110	24.02
Secure	31	31.96	168	36.68
Very Secure	38	39.18	160	34.93
Missing	0	0	3	0.66
Job Satisfaction*	N=97		N=457	
Extremely or very dissatisfied	12	12.37	45	9.85
Somewhat dissatisfied	12	12.37	48	29.32
Somewhat satisfied	38	39.18	134	29.32
Extremely or very satisfied	35	36.08	230	50.33
*Frequencies and percentages only calculated among those respondents that indicated having a job in 2007				

Table 2. Demographic descriptive statistics for the sample in 2007 stratified by whether or not the respondent completed an assessment in 2011

<i>Demographic Descriptive Statistics in 2007</i>	Completed an assessment in 2011?					
	No			Yes		
	N	Mean	SD	N	Mean	SD
Age in Years	117	34.78	0.56	533	34.72	0.58
Annual Household Income	93	65665.09	52379.15	489	72362.66	67388.04
Mental Health Total Score	119	41.29	11.39	543	38.24	9.01

Table 3. Financial stress in 2007 and 2011 for the subsample with assessments completed at both time points

<i>Financial Stress</i>	2007			2011		
	N	Mean	SD	N	Mean	SD
How much stress have you felt in meeting financial obligations?	537	4.27	1.84	537	4.29	1.89
How difficult is it for you to pay your bills on time?	535	3.12	1.93	535	3.23	2.01

**Table 4.** Employment-related concerns about the future in 2007 and 2011 for the subsample with assessments completed at both time points

<i>Employment-Related Concerns About the Future</i>	Assessment Time Point (N =537 )			
	2007		2011	
	n	%	n	%
<b>Are you concerned that any of the following might interfere with your work or career plans in the future?</b>				
Lack of ability to get training or degree	67	12.48	92	17.13
Lack of money to complete education or get started in my chosen career field	139	25.88	135	25.14
I am considered "overqualified"	19	3.54	50	9.31
Lack of openings in my field	96	17.88	160	29.80
Relocation is difficult or impossible	83	15.46	107	19.93
Illness, accident, or disability	71	13.22	105	19.55
Caring for a sick parent or relative	85	15.83	104	19.37
Transportation problems - difficulty in getting to or from work	36	6.70	51	9.50