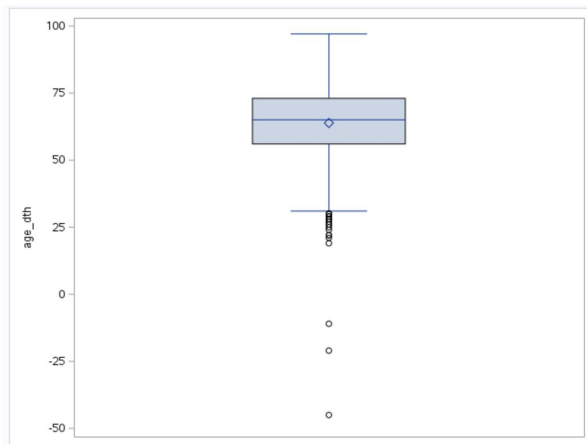
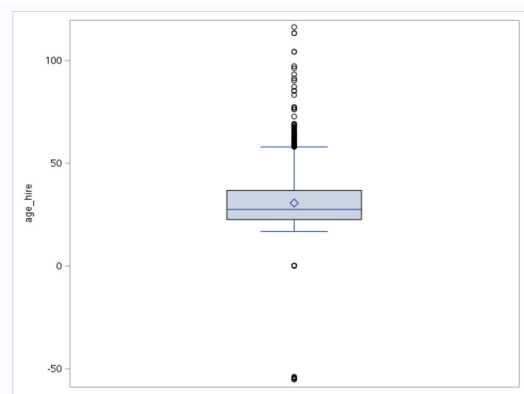
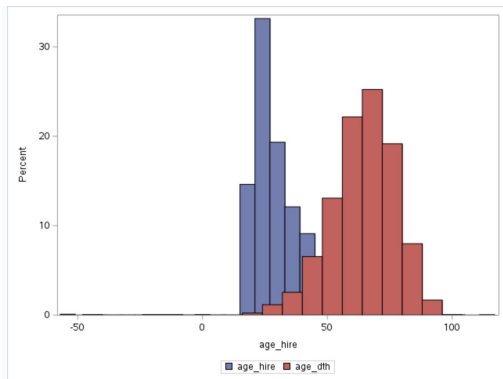


Exercise 1

a)



/*comment: */

*I prefer the box plots since box plots are able to show clear signs of outliers so we can be careful in dealing with these outliers for further analysis;

b)

The MEANS Procedure

Variable	N	Mean	Std Dev
age_hire	5156	28.05	9.03
age_dth	3	-25.68	17.49

c)

The MEANS Procedure

Variable	N	Mean	Std Dev
age_hire	3	-36.37	31.68
age_dth	3	-25.68	17.49

d)

orauid	bdate	sex	educ	hiredate	termdate	ddate	age_hire	age_dth	difference_hire
416943	07/01/1999	1	1	09/15/1944	09/15/1999	.	-54.8274	.	20088
417199	07/01/1999	0	1	02/15/1945	09/15/1999	.	-54.4082	.	19935
417255	07/01/1999	0	2	09/15/1999	09/15/1999	.	0.2082	.	0
417267	07/01/1999	0	2	03/15/1945	03/15/1945	.	-54.3315	.	0
417265	07/01/1999	0	3	09/15/1999	09/15/1999	.	0.2082	.	0
417203	07/01/1999	0	2	05/15/1945	08/15/1945	07/01/1978	-54.1644	-21.0137	92
417222	07/01/1999	0	9	09/15/1999	09/15/1945	.	0.2082	.	-19723
78020	07/01/1999	0	4	09/15/1945	09/15/1999	.	-53.8274	.	19723
416897	07/01/1999	0	9	09/15/1999	09/15/1945	07/01/1954	0.2082	-45.0301	-19723
417233	07/01/1999	0	2	05/15/1944	07/15/1944	07/01/1988	-55.1644	-11.0055	61

e)

orauid	bdate	sex	educ	hiredate	termdate	ddate	age_hire	age_dth	difference_hire
416845	07/01/1883	0	1	09/15/1999	09/15/1999	.	116.285	.	0
416893	07/01/1886	0	1	09/15/1999	09/15/1999	07/01/1962	113.282	76.0493	0
416758	07/01/1916	1	1	09/15/1999	09/15/1999	.	83.263	.	0
416943	07/01/1999	1	1	09/15/1944	09/15/1999	.	-54.827	.	20088
417199	07/01/1999	0	1	02/15/1945	09/15/1999	.	-54.408	.	19935
417255	07/01/1999	0	2	09/15/1999	09/15/1999	.	0.208	.	0
417240	07/01/1886	0	4	09/15/1999	09/15/1999	07/01/1981	113.282	95.0630	0
416906	07/01/1895	0	1	09/15/1999	09/15/1945	07/01/1971	104.277	76.0493	-19723
417009	07/01/1914	1	2	09/15/1999	10/15/1945	.	85.266	.	-19693
417267	07/01/1999	0	2	03/15/1945	03/15/1945	.	-54.332	.	0
417265	07/01/1999	0	3	09/15/1999	09/15/1999	.	0.208	.	0
417126	07/01/1914	0	1	09/15/1999	08/15/1944	.	85.266	.	-20119
417225	07/01/1912	0	2	09/15/1999	10/15/1945	.	87.266	.	-19693
417086	07/01/1906	0	2	09/15/1999	09/15/1999	07/01/1968	93.271	62.0438	0
193042	07/01/1902	0	2	09/15/1999	10/15/1949	07/01/1979	97.274	77.0521	-18232
417203	07/01/1999	0	2	05/15/1945	08/15/1945	07/01/1978	-54.164	-21.0137	92
417222	07/01/1999	0	9	09/15/1999	09/15/1945	.	0.208	.	-19723
416903	07/01/1903	0	1	09/15/1999	09/15/1999	07/01/1976	96.274	73.0521	0
78020	07/01/1999	0	4	09/15/1945	09/15/1999	.	-53.827	.	19723
417044	07/01/1908	0	2	09/15/1999	09/15/1945	07/01/1960	91.268	52.0356	-19723
417219	07/01/1895	0	9	09/15/1999	10/15/1944	07/01/1988	104.277	93.0630	-20058
416897	07/01/1999	0	9	09/15/1999	09/15/1945	07/01/1954	0.208	-45.0301	-19723
417233	07/01/1999	0	2	05/15/1944	07/15/1944	07/01/1988	-55.164	-11.0055	61
416726	07/01/1909	0	2	09/15/1999	10/15/1945	.	90.268	.	-19693

Exercise 2:

a)

The MEANS Procedure

Variable	N
age_hire	15
age_dth	5

Obs	orauid	bdate	hiredate	termdate	ddate	age_hire	age_dth	difference_hire
978	416906	07/01/1895	09/15/1999	09/15/1945	07/01/1971	104.277	76.0493	-19723
1773	417009	07/01/1914	09/15/1999	10/15/1945	.	85.266	.	-19693
2499	417126	07/01/1914	09/15/1999	08/15/1944	.	85.266	.	-20119
2596	417225	07/01/1912	09/15/1999	10/15/1945	.	87.266	.	-19693
2625	193042	07/01/1902	09/15/1999	10/15/1949	07/01/1979	97.274	77.0521	-18232
2731	417222	07/01/1999	09/15/1999	09/15/1945	.	0.208	.	-19723
2956	417234	07/01/1922	09/15/1999	10/15/1945	.	77.260	.	-19693
3819	417258	07/01/1922	09/15/1999	06/15/1946	.	77.260	.	-19450
4909	417246	07/01/1930	09/15/1999	09/15/1953	.	69.255	.	-16801
5175	416976	07/01/1922	09/15/1999	10/15/1945	.	77.260	.	-19693
5206	417044	07/01/1908	09/15/1999	09/15/1945	07/01/1960	91.268	52.0356	-19723
6099	417219	07/01/1895	09/15/1999	10/15/1944	07/01/1988	104.277	93.0630	-20058
6271	416897	07/01/1999	09/15/1999	09/15/1945	07/01/1954	0.208	-45.0301	-19723
6294	91610	07/01/1923	09/15/1999	09/15/1946	.	76.260	.	-19358
6473	416726	07/01/1909	09/15/1999	10/15/1945	.	90.268	.	-19693

b)

The MEANS Procedure							
Variable		N					
age_hire		24					
age_dth		9					

Obs	orauid	bdate	hiredate	termdate	ddate	age_hire	diff_date
93	416845	07/01/1883	09/15/1999	09/15/1999	.	116.285	0
448	416893	07/01/1886	09/15/1999	09/15/1999	07/01/1962	113.282	0
473	416758	07/01/1916	09/15/1999	09/15/1999	.	83.263	0
734	417255	07/01/1999	09/15/1999	09/15/1999	.	0.208	0
846	417240	07/01/1886	09/15/1999	09/15/1999	07/01/1981	113.282	0
978	416906	07/01/1895	09/15/1999	09/15/1945	07/01/1971	104.277	0
1773	417009	07/01/1914	09/15/1999	10/15/1945	.	85.266	0
2135	417265	07/01/1999	09/15/1999	09/15/1999	.	0.208	0
2499	417126	07/01/1914	09/15/1999	08/15/1944	.	85.266	0
2596	417225	07/01/1912	09/15/1999	10/15/1945	.	87.266	0
2611	417086	07/01/1906	09/15/1999	09/15/1999	07/01/1968	93.271	0
2625	193042	07/01/1902	09/15/1999	10/15/1949	07/01/1979	97.274	0
2731	417222	07/01/1999	09/15/1999	09/15/1945	.	0.208	0
2956	417234	07/01/1922	09/15/1999	10/15/1945	.	77.260	0
3308	416903	07/01/1903	09/15/1999	09/15/1999	07/01/1976	96.274	0
3819	417258	07/01/1922	09/15/1999	06/15/1946	.	77.260	0
4909	417246	07/01/1930	09/15/1999	09/15/1953	.	69.255	0
5175	416976	07/01/1922	09/15/1999	10/15/1945	.	77.260	0
5206	417044	07/01/1908	09/15/1999	09/15/1945	07/01/1960	91.268	0
5800	416919	07/01/1923	09/15/1999	09/15/1999	.	76.260	0
6099	417219	07/01/1895	09/15/1999	10/15/1944	07/01/1988	104.277	0
6271	416897	07/01/1999	09/15/1999	09/15/1945	07/01/1954	0.208	0
6294	91610	07/01/1923	09/15/1999	09/15/1946	.	76.260	0
6473	416726	07/01/1909	09/15/1999	10/15/1945	.	90.268	0

c)

No

The MEANS Procedure							
Variable		N					
age_hire		3					
age_dth		3					

Obs	orauid	bdate	hiredate	termdate	ddate	age_hire	diff_date
2686	417203	07/01/1999	05/15/1945	08/15/1945	07/01/1978	-54.1644	-19846
6271	416897	07/01/1999	09/15/1999	09/15/1945	07/01/1954	0.2082	0
6301	417233	07/01/1999	05/15/1944	07/15/1944	07/01/1988	-55.1644	-20211

d)

Obs	orauid	bdate	hiredate	termdate	ddate	age_hire	diff_date
505	416943	07/01/1999	09/15/1944	09/15/1999	.	-54.8274	-20088
571	417199	07/01/1999	02/15/1945	09/15/1999	.	-54.4082	-19935
734	417255	07/01/1999	09/15/1999	09/15/1999	.	0.2082	0
2117	417267	07/01/1999	03/15/1945	03/15/1945	.	-54.3315	-19907
2135	417265	07/01/1999	09/15/1999	09/15/1999	.	0.2082	0
2686	417203	07/01/1999	05/15/1945	08/15/1945	07/01/1978	-54.1644	-19846
2731	417222	07/01/1999	09/15/1999	09/15/1945	.	0.2082	0
3858	78020	07/01/1999	09/15/1945	09/15/1999	.	-53.8274	-19723
6271	416897	07/01/1999	09/15/1999	09/15/1945	07/01/1954	0.2082	0
6301	417233	07/01/1999	05/15/1944	07/15/1944	07/01/1988	-55.1644	-20211

The above table shows subjects with birthday on 07/01/1999

The MEANS Procedure

Variable	N
age_hire	4
age_dth	1

Obs	orauid	bdate	hiredate	termdate	ddate	age_hire	diff_date
734	417255	07/01/1999	09/15/1999	09/15/1999	.	0.20822	0
2135	417265	07/01/1999	09/15/1999	09/15/1999	.	0.20822	0
2731	417222	07/01/1999	09/15/1999	09/15/1945	.	0.20822	0
6271	416897	07/01/1999	09/15/1999	09/15/1945	07/01/1954	0.20822	0