Table 11. Snake River spring/summer chinook hypothesis test results for differences in means between two brood year periods for spawner index SP1, Sm/SP1, ln(Sm/SP1) and ln(observed/expected), where u1 = mean for brood years 1962-1974, and u2 = mean for brood years 1975-1982, 1990-1993. t-tests are based on t adjusted for positive autocorrelation. 1/

		Sm/SP1		ln(Sm/SP1)		ln(Obs./Exp)	
Test	**SP1**	**FGE 0.56**	**FGE 0.40**	**FGE 0.56**	**FGE 0.40**	**FGE 0.56**	**FGE 0.40**
u1	38660	70.5	70.5	4.20	4.20	0.0603	0.0528
Var	1.16E+08	719.3	719.3	0.11	0.11	0.0419	0.0349
Stdev	10756	26.8	26.8	0.33	0.33	0.2046	0.1868
n	13	13	13	13	13	13	13
u2	13744	97.8	111.6	4.49	4.60	-0.0653	-0.0572
Var	9.60E+07	1941.0	3169.5	0.20	0.24	0.1555	0.1658
Stdev	9798	44.1	56.3	0.45	0.49	0.3943	0.4072
n	12	12	12	12	12	12	12
u1-u2	24916	-27.3	-41.1	-0.29	-0.40	0.1256	0.1101
Sp^2	1.06E+08	1303.6	1891.1	0.15	0.17	0.0962	0.0975
R	0.81	-0.06	0.05	-0.04	0.15	-0.32	-0.30
K	3.32	1.00	1.05	1.00	1.17	1.00	1.00
SE	4127	14.5	17.4	0.16	0.17	0.1242	0.1250
df	23	23	23	23	23	23	23
t unadjusted	6.038	-1.889	-2.363	-1.854	-2.422	1.012	0.881
t adjusted	1.817	-1.889	-2.240	-1.854	-2.071	1.012	0.881
Two tailed test 2/							
Ho: u1-u2=0 p=0.01	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject
Ho: u1-u2=0 p=0.05	fail to reject	fail to reject	reject	fail to reject	reject	fail to reject	fail to reject
Ho: u1-u2=0 p=0.10	reject	reject	reject	reject	reject	fail to reject	fail to reject
Ha: u1-u2 not equal to 0 (Parameter value changed from period 1 to period 2)							
One tailed test 3/							
Ho: u1-u2<=0 p=0.01	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject
Ho: u1-u2<=0 p=0.05	reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject
Ho: u1-u2<=0 p=0.10	reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject	fail to reject
Ha: u1-u2 > 0 (Parameter value decreased from period 1 to period 2)							

1/ R = autocorrelation coefficient (Bence 1995; eq. 1)
K = standard error correction factor for positive autocorrelation (Bence 1995; eq 6).
2/ critical t values for two tail test and p=0.01, 0.05 and 0.10: 2.807, 2.069 and 1.714, respectively.
3/ critical t values for one tail test and p=0.01, 0.05 and 0.10: 2.500, 1.714 and 1.319, respectively.