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INTRODUCTION

Different countries have shown an inverse relationship between unemployment rates and indicators of sickness absence during periods of economic recession. To our knowledge there is no study which has investigated the relationship between unemployment and absenteeism in Spain.

OBJECTIVE

Evaluate the relationship between indicators of absenteeism and unemployment in Spain during 2009-2014.

METHODS

We obtained incidence and absenteeism rates of non-work related sickness absence (NWSA). Data was obtained from the population protected by health insurance companies (“mutuas”) collected by the Social Security. Data on unemployment rates was provided by the National Statistics Institute in Spain. The relationship between indicators of NWSA and unemployment in the period 2009 to 2014 was graphically described using time trend plots. Scatter plots of NWSA indicators were also made against unemployment. Finally, we fitted statistical models using absenteeism indicators as dependent variables and unemployment rates as an explanatory variable.

RESULTS

Incidence (IR) and absenteeism rates (AR) of NWSA showed downward trends in 2009-2014 (IR 2009 = 28.1% and IR 2014 = 20.8%; AR 2009 = 2.5% and AR 2014 = 2.0%) (Figure 1, Figure 2). On the other hand, the unemployment rate (UR) had an upward trend in the study period (UR 2009 = 17.9% and UR 2014 = 24.4%) (Figure 1, Figure 2). An inverse relationship between unemployment rates and absenteeism indicators was observed (incidence rates: Beta unemployment = -0.93 ($p < 0.01$) and $R^2 = 95.2\%$; absenteeism rates: Beta unemployment = -0.08 ($p < 0.01$) and $R^2 = 99.0\%$) (Figure 3, Figure 4).

Figure 3. Relation between incidence rate of NWSA and unemployment rate.

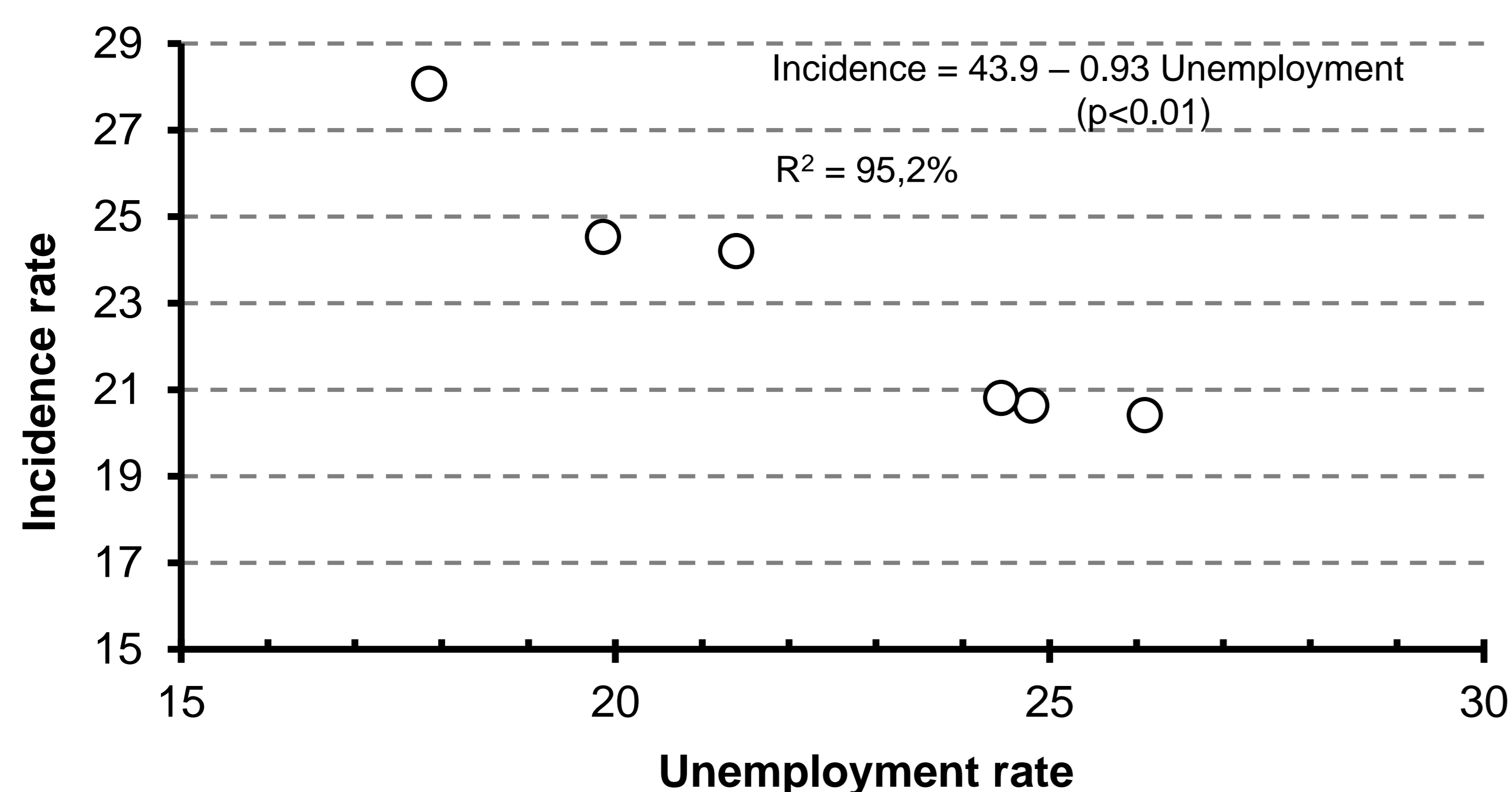


Figure 1. Incidence rate of NWSA and unemployment rate time trend evolution (2009-2014).

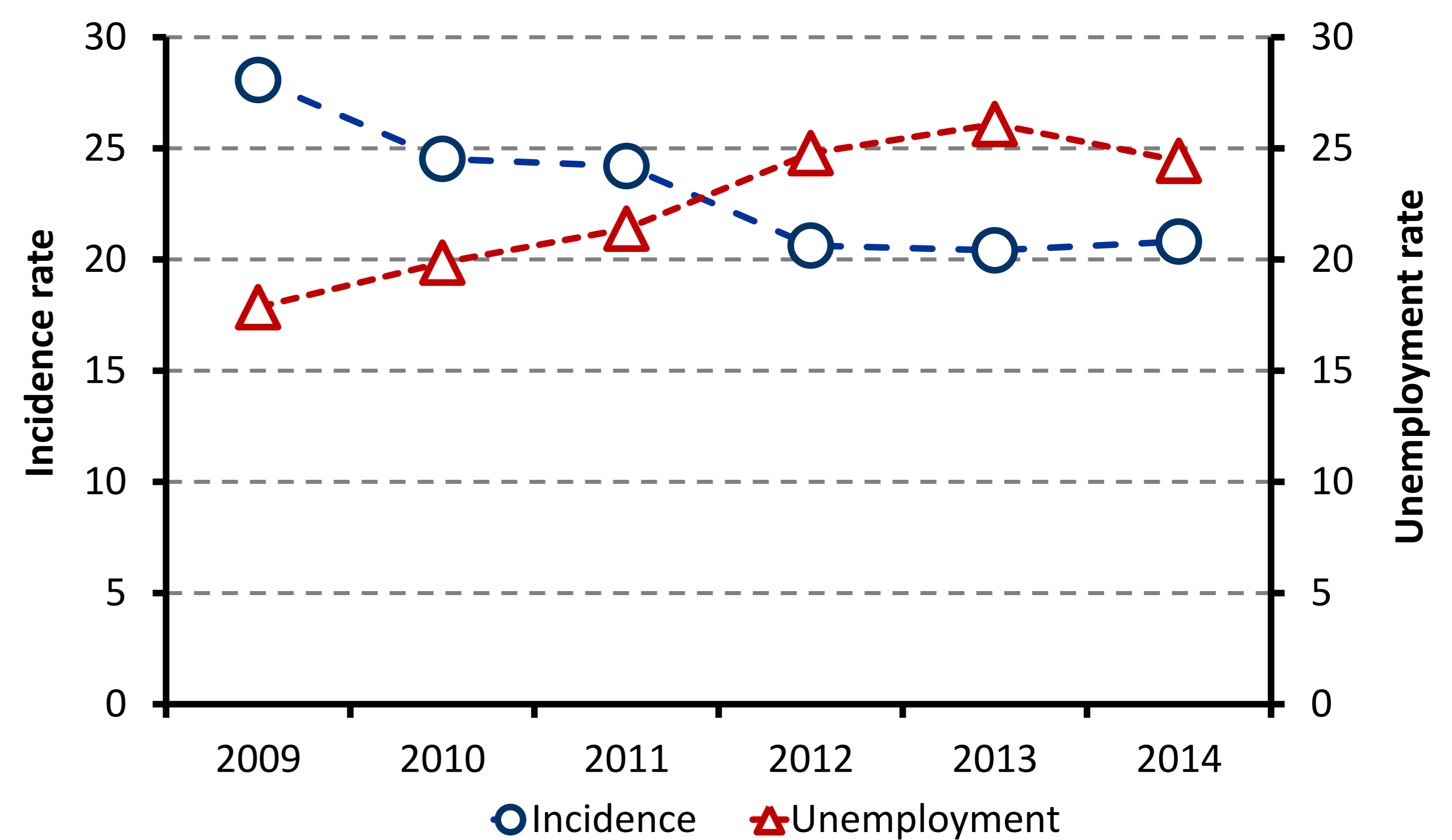


Figure 2. Absenteeism rate of NWSA and unemployment rate time trend evolution (2009-2014).

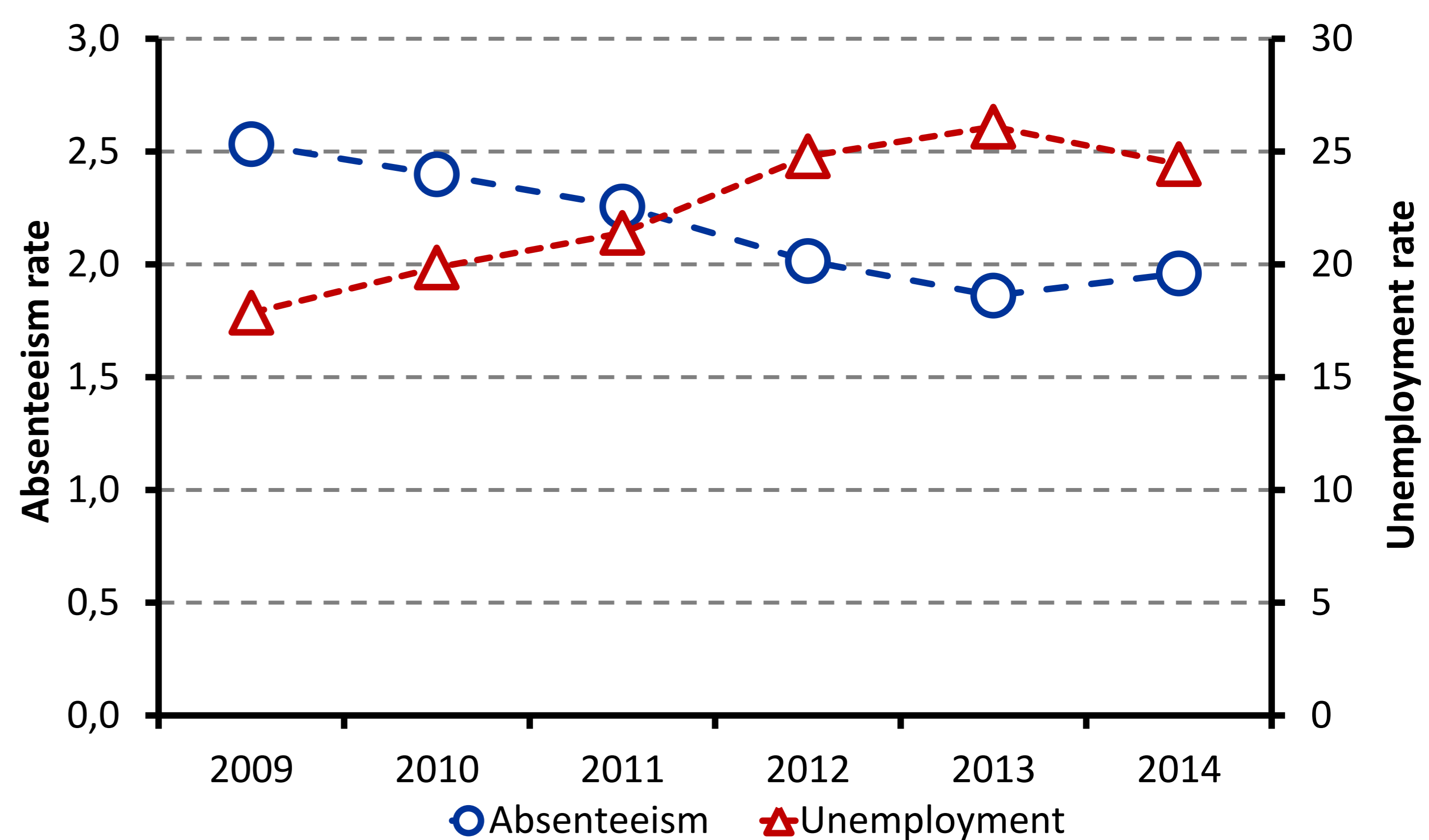
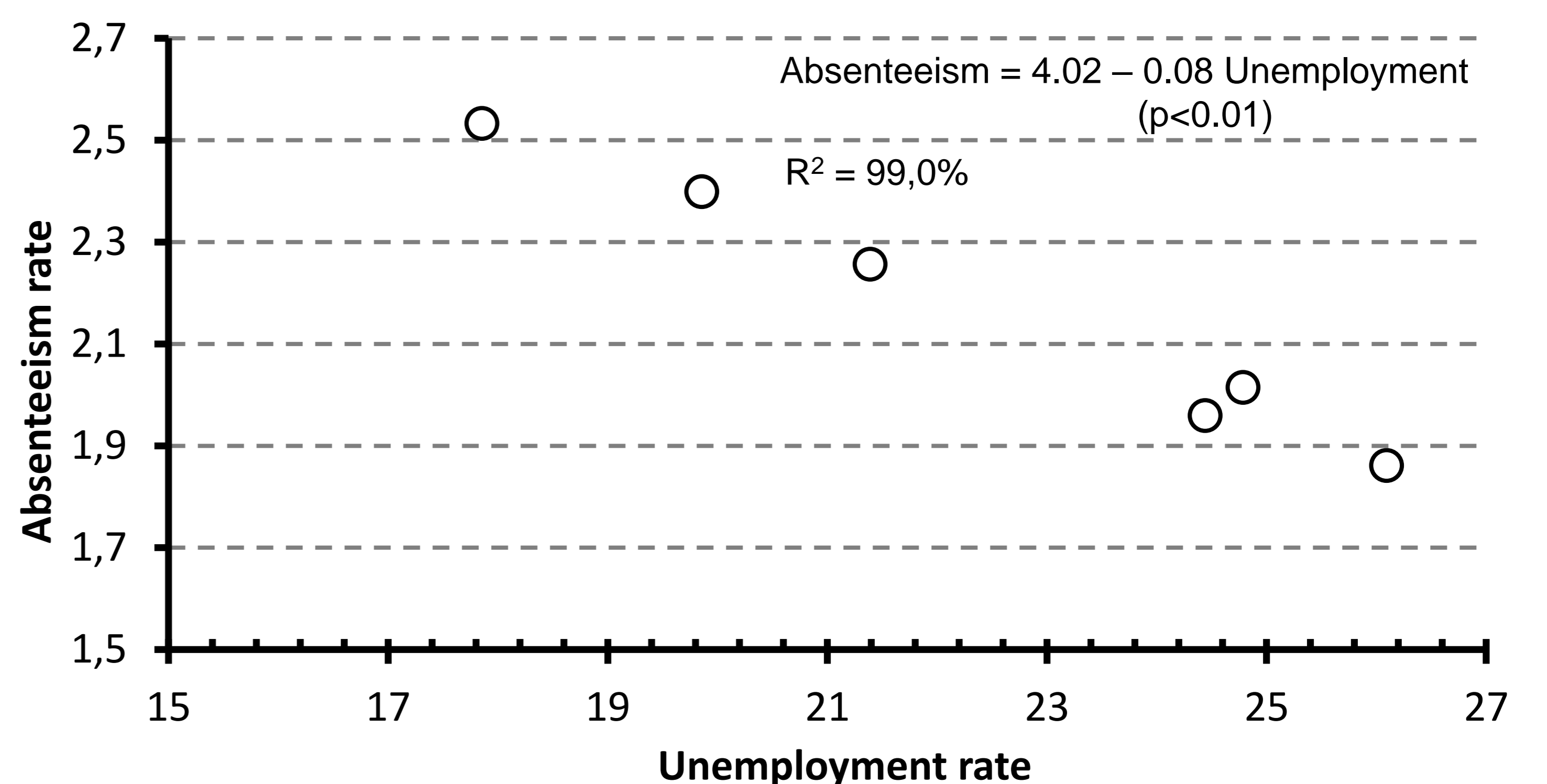


Figure 4. Relation between absenteeism rate of NWSA and unemployment rate.



CONCLUSIONS

As in previous international studies, an inverse relationship between unemployment and absenteeism was observed in Spain. Specific studies are needed to evaluate explanatory hypotheses such as those associated with the theory of discipline and changes in the workforce.