

The Political Relevance of Job and Wage Growth: How Job and Wage Growth Affects Economic Evaluations

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Abstract

This essay examines whether job and wage growth influences economic evaluations in the United States. Previous scholarly focus on economic growth and unemployment has left the role of job and wage growth largely unexamined. This essay illustrates the importance of alternative measures of the labor by showing job and wage growth, singularly, and then after controlling for the effects of unemployment and economic growth, significantly affects perceptions of the economy. Moreover, the size of the effects are quite large considering the limited media attention given to job and wage growth relative to other economic indicators.

This essay considers the effects of aggregate job and wage growth on sociotropic economic evaluations in the United States. Economic performance is critically important to electoral behavior and a variety of objective economic indicators explain election outcomes and the economic evaluations of the public (see Lewis-Beck and Stegmaier 2000; Nannestad and Paldem 1994 for reviews of the extensive literature). The health of the labor market is one of the more frequently used concepts to capture macroeconomic performance with the unemployment rate (or change in the unemployment rate) used as a measure of the labor market. The focus on unemployment has overshadowed the possible effects of job and wage growth on political behavior (see Lewis-Beck and Tien 2004 for an exception).

The theoretical argument for the influence of job and wage growth on economic evaluations relies on three points. First, structural changes in the U.S. economy have put an increased emphasis on job insecurity—defined as the prospect of losing a current job and the difficulty in finding a new job that is comparable—in wages and benefits—to previous employment (Mughan and Lacy 2002). The prospect of finding a comparable job depends, at least partially, on the rate of job growth. Finding a comparable job would also depend on wage growth.

Second, voters have heterogeneous views of the unemployed and the reported levels of unemployment by attributing unemployment to either a poor economy or to the perceived traits of the unemployed such as a lack of education, skills, or work ethic. Job and wage growth is less likely to be attributed to individuals and responsibility is more likely to be found in sociotropic causes. The attribution to sociotropic causes strengthens the relationship between job and wage growth and political behavior.

Finally, job and wage growth occur at specific places of the economic cycle and have measurement advantages over the unemployment rate. The reported unemployment statistic can understate weakness in the labor market during economic downturns and overstate the weakness during recoveries. This measurement issue is of less concern with job and wage growth. Also because they lag economic growth overall but avoid the measurement issue of unemployment, they may be a better indicator of the labor market and the economic perceptions of voters.

The empirical tests of the theory consist of measuring the effects of job and wage growth on individual level retrospective sociotropic economic evaluations (retrospections). These results make three contributions to the literature. First, which economic indicators contribute to the formation of retrospections is unclear. These results show that citizens incorporate job and wage growth into their assessments of economic performance simultaneously with unemployment and economic growth. Second, by including both unemployment, wage, and job growth, the results shed light on how the labor market more generally affects economic evaluations. Finally, the results place the evidence directly linking job and wage growth to voting outcomes on a firmer footing (i.e. that aggregate-level results are not an artifact of a missing variable).

Literature

That economics affects politics is widely accepted. The act of voting can be viewed as a referendum on the performance of the incumbent party. Wisely eschewing promises about the future, voters look upon prior economic performance and evaluate the acceptability of the results. Starting with Kramer's (1971) seminal essay, several objective economic indicators are strongly predictive of presidential election outcomes. Kramer (1971) used election year change in personal income growth, inflation, and unemployment to explain the vote share received by the incumbent (or in-party) presidential candidate. Subsequent work in this area is voluminous

and often updated every presidential election but Stigler (1973), Bloom and Price (1975), Tuftel (1975), Fair (1978), Abramowitz (1988), Hibbs (2000), Lewis Beck and Tien (2004), Campbell (2008) consistently use objective economic indicators to explain a significant portion of presidential electoral vote shares. One summary of this literature suggests "...changes in disposable income matter more than changes in GDP (which are presumably less tangible), which in turn matter more than changes in unemployment (which produce relatively few direct losers) and inflation (which produce many losers but also a good many winners) and many others" (Bartels 1997, 196). Hibbs (2000) illustrates real disposable personal income per capital (coupled with a casualty variable during foreign interventions) has a very strong relationship with presidential vote shares. However, which objective economic indicator is utilized in the research still varies. While the macroeconomy has important effects "...there was not convergence on which indicators were responsible for them" (Lewis-Beck et al. 2008, 378) and "Most forecasting models include a measure of the economy, but there is no consensus on which one measure to use." (Lewis-Beck and Tien 2004, 755)

The lack of a consensus is partly because voters can have varied views of the economy (Duch, Palmer, and Anderson 2000). While one voter may evaluate the economy as "good" or improved, this view may not necessarily be shared by other voters. These heterogeneous evaluations are derived, in part, from voters weighting objective economic indicators differently (Lewis-Beck and Nadeau 2001). One voter may find unemployment highly influential, while another finds importance in stock market performance, and yet another leans heavily on gas prices to affect their economic views (Holbrook 2001; see also Hetherington 1996 for how the media can affect economic evaluations).

With this differential weighting by voters among other heterogeneous factors, the early literature came to disparate conclusion on the effects on unemployment. One summary of the early research suggests, “Thus, the findings on the impact of unemployment on presidential popularity are contradictory and depend on how unemployment is measured and whether the data are tainted by autoregressive features” (Kenski 1977, 115). These inconsistent results on unemployment coupled with stronger findings for aggregate growth (GDP) and personal income growth pushed the health of the labor market to the background and the effect of job growth even further from close examination, until recently.

Dominitz and Manski (1997) find a significant amount of job insecurity, the probability of losing current employment, among respondents in the U.S. In 1995. Mughan and Lacy (2002) also suggest the structural changes in the U.S. economy caused by globalization increased the sensitivity of U.S. voters to job insecurity. These subjective impressions of job insecurity strongly affected voting preferences for Ross Perot during the 1996 presidential elections. Lewis-Beck and Tien (2004b) adopt an objective aggregate measure of job growth—the number of jobs created during the first 3.5 years of a president’s term “We argued that the changing nature of the American economy required attention to a hitherto neglected variable—job growth” (27). The added jobs variable increased the accuracy of the 2004 presidential election forecast.

Why Jobs and Wages Matter and is Different from Unemployment

Mughan and Lacy (2002) conceptualize job insecurity as the probability of a current job loss and the availability of comparable employment. The actual number of jobs created would strongly affect the perceptions of whether the economy is generating enough jobs in order to obtain a new position. Of course, if the economy is generating few jobs, then the prospect of finding new and

comparable employment is severely reduced. Fewer jobs means fewer opportunities to find comparable employment and fewer jobs available also put downward pressure of wage growth. The structural changes identified by Mughan and Lacy (2002) have intensified since 1996. The bursting of the technology bubble, the recession of 2001 (albeit shallow) was followed by an economic expansion but sluggish job growth (a so-called jobless recovery). The financial crisis of 2008 and ensuing severe recession eliminated millions of jobs from the U.S. economy. Though economic growth resumed in July 2009, very sluggish job growth persisted through 2010 and 2011. In sum, the job insecurity identified by Mughan and Lacy (2002) has only intensified with the number of jobs lost in recessions and the lackluster fashion in which jobs have been created during recoveries.

Focusing on job and wage growth also avoids the attribution dynamic of unemployment. The connection between economics and politics is conditioned on the assignment of responsibility for economic conditions: “it is fair to conclude that the attribution of responsibility is a crucial step in the decision-making process of economic voting” (Peffley 1984, 280). Jobs and wages may matter to voters because the health of the labor market consistently affects many voters but the typical measurement of the labor market—unemployment—is not fully attributed to sociotropic or governmental sources. The attribution of responsibility regarding unemployment has a significant individual component (Iyengar 1990, 1991). In one experiment, only 50% of respondents identified economic conditions as a contributing cause to high unemployment. Individual levels of education, character, and work ethic were identified by 30% of respondents as a contributing cause (Iyengar 1991, 51). Government policy as a cause composed the rest of the responses. In thinking about unemployment, some voters think about the unemployed, and then to the perceived lack of work ethic or the lack of skills as the cause for

unemployment. Job and wage growth is less of a heuristic for voters to make individual attributions but rather to invoke sociotropic causes such as government policy or business conditions. If voters care about the labor market and job and wage growth have a strong sociotropic source of responsibility, then this strengthens the connection between job growth and political behavior.

Finally, the calculation of the unemployment rate is a function of those who are actively looking for work but unable to secure employment. Those who are unemployed but not actively looking for work do not affect the reported unemployment rate. Moreover, those who are unemployed but not looking for work do not remain constant over the economic cycle. During downturns when prospects for employment are weakest, the number of individuals who give up looking for work increase. During recoveries, when employment prospects are improved, the number of people who are actively looking for employment increase. For example, the unemployment rate increased slightly in May 2012 from 8.1% to 8.2% due an increase in those looking for work but still unemployed. In sum, the unemployment rate then may give attenuated or augmented estimates of the health of the labor market—depending upon its location in the economic cycle.

Assuming voters are concerned about the health of the labor market, then increasing numbers of people who have given up their job search because of poor prospects suggests a poor job market (fewer jobs, downward pressure on wages), even if the official unemployment rate does not count those who have dropped out the labor force as unemployed. Similarly, more people looking for work due to increased prospects (more jobs and once they are filled upward pressure on wages) suggests an improving labor market, even if the number of those who are actively looking for work but still unemployed causes a small uptick in the unemployment rate.

The responsiveness of the size of the labor force to job growth suggests jobs matter and the rate of job growth offers a measurement of how voters may view the health of the labor market that avoids the definitional issues, of which citizens may be largely unaware, with the official unemployment calculations.

In sum, the structural changes in the U.S. economy, the attribution of responsibility to sociotropic causes, and the effect of job and wage growth on the labor force suggest job and wage growth should affect perceptions of the economy. One important caveat is in order. While job and wage growth may have significant utility as measures of the health of the labor market, they receive significantly less attention from media outlets than many other economic indicators such as the unemployment rate and economic growth (GDP).

Data

The job and wage growth data come from the Bureau of Labor Statistics (BLS) survey of business establishments. The monthly survey collects information on non-farm establishment payrolls and hourly wages. The specific measurement used is the change in number of jobs between January and October of the election year (between 1980 and 2012) and the percent change in wages between January and October of the election year. The unemployment data comes from the BLS survey of households. It collects specific information on whether the respondent has a job and if not, if they are actively pursuing employment prospects. The measurement used here is the change in the unemployment rate between January and October of the election year. Gross Domestic Product data comes from the Bureau of Economic Analysis. Percentage change in GDP in the first three quarters of the election year is used. These four data series¹ were added to the American National Election Studies (ANES) cumulative data file. The

1 Table 1 displays the values of these data series

empirical tests analyze the effect of job and wage growth on retrospections in presidential election years from 1980 to 2012. Economic perceptions are measured using the *retrospective sociotropic economic evaluation*—How much better or worse has the economy been in the past year? Answers are on a three point scale ranging range from better (2), the same (1), and worse (0). Control variables include *age, personal and/or family retrospective financial evaluations, media usage, party identification, union membership, family income, religiosity, gender, education, and ideology*.² Since the dependent variable is ordinal, maximum likelihood models (ordered logit) are estimated. Due to the non-independence of observations within years clustered standard errors are used.

Insert Table 1 Here

Results

The results shown in table 2 reports the effects of job and wage growth on retrospective economic evaluations, while controlling for GDP and unemployment. As expected, both job and wage growth have a strong positive effect on the economic evaluations of voters. That job and wage growth retains its significance after controlling for both economic growth and unemployment is strong evidence of the role of job growth in the formation of economic evaluations.

²This analysis uses the ANES Cumulative Data File from 1980 to 2012 (the September 25, 2014 release). The data are weighted by variable VCF0009a. VCF0870 is used for the sociotropic retrospective economic evaluations, Variable VCF0880 for pocketbook retrospective economic evaluations, VCF0301 for party identification, VCF0804 for ideological orientation, VCF0130 for religiosity, VCF0114 for family income, VCF0140a for education, VCF0101 for age, VCF0104 for gender, VCF0127 for union membership and a weighted index of VCF0724, VCF0725, VCF0726 and VCF0727 for media usage. When the incumbent president is a Democrat, the characteristics assigned higher values on the control variables are Democratic party identification, a liberal ideological orientation, higher education levels, union membership, lower family incomes, women, and less religiously active. When Republicans are the in-party, the opposite characteristics are assigned the higher values.

Insert Table 2 about here

To illustrate the substantive effect of job and wage growth on economic evaluations, figure 1 shows the predicted probabilities for each of the three responses to the sociotropic retrospective economic question. The effects are shown across the range of job growth from the minimum, 25th percentile, 50th percentile, 75th percentile, and maximum amount of job growth while holding all other variables at their means or modes. As job growth increases from the minimum to maximum, the probability of a “worse” response declines from .55 to .33, “same” increases from .34 to .43, “better” increases from .11 to .23. The change in probabilities reflects more positive evaluations at higher levels of job growth. The substantial probability of “same” responses compared with “better” responses at more positive levels of job growth reflect job growth keeping pace with population growth so even though jobs are being created voters do not necessarily feel the economy is “better” but rather remaining the “same.”

Figure 2 shows how the change in wage growth affects the predicted probabilities of responses to the retrospective economic evaluation question. The results are shown from the minimum to maximum amount of wage growth from 1980 to 2012 with intervals for the 25th percentile, 50th percentile, and 75 percentile of wage growth. Here the results are even more substantively illustrative of the effect of the labor market on retrospective economic evaluations. The probability of “worse” responses decreases from .58 to .08 as wage growth increases from the minimum to maximum amount of wage growth—similar change is seen across from the 25th to 75 percentile so this is not a function of outliers. The probability of a “same” response increases from .32 to .42 from the minimum to the 75th percentile of wage growth. The probability of the “same” response decreases at the maximum level of wage growth. The probability of a “better” response increases gradually from .10 at the minimal level of wage

growth to .20 at the 75th percentile of wage growth and then spikes to .60 at the maximum amount of wage growth as those in the “worse” or “same” categories move to the “better” response.

Insert Figures 1, 2 about here

One important point can be noted from comparing the effects wage and job growth with the change in unemployment. The amount of change in economic evaluations from the minimum and maximum amount of unemployment is about the same wage growth and slightly more than job growth. For example, the change of a “worse” response, from minimum to maximum values, is .50 for unemployment (.28 to .78) and .49 for wage growth (.58 to .09). The change in a “better” response is .23 (.27 to .04) for unemployment and .52 (.09 to .61) for wage growth (.10 from minimum to the 75th percentile-- .09 to .19). Given extensive media focus on unemployment and considerable less media attention on wages and job growth suggests the importance of job and wage growth in the formation of economic evaluations.

Conclusion

This essay tested the effects of job and wage growth on economic evaluations. Job and wage growth are often overlooked measures of the labor market due to the frequent use of unemployment to gauge how the health of the labor market affects political behavior. Due to structural change in the U.S. economy, attributional differences between unemployment and job growth, and the effect of job growth in the size of the labor force, job and wage growth do significantly affect how the economy is perceived. The effects of both jobs and wage growth were sustained after controlling for both economic growth and change in the unemployment rate. In comparing the substantive effects, while unemployment receives considerable more mediate attention, wage growth has the same size of effect as unemployment (while unemployment has

stronger effects than job growth).

These results have several implications. It has been established that the economy matters but which aspects of the economy, and how strongly they are incorporated in the formation of economic evaluations, is less clear. These results suggest that both job and wage growth are incorporated into economic evaluations with unemployment having slightly stronger effects than job growth. These results place the evidence linking job and wage growth to voting outcomes on a firmer footing. Illustrating that job growth directly affects retrospection while controlling for unemployment and economic growth, suggests the effects of job growth on elections is not necessarily an artifact of an omitted variable. This is especially relevant to aggregate-level results where the degrees of freedom are small, limiting the number of economic indicators that can be incorporated into the statistical model.

References

- Abramowitz, Alan I. 1988. "An Improved Model for Predicting Presidential Election Outcomes." *PS: Political Science and Politics* 21:843-846.
- Bartels, Larry M. 1997. "Econometrics and Elections." *Journal of Economic Perspectives* 11:195-196.
- Bloom, Howard S., Price, Douglas H. 1975. "Voter Response to Short-Run Economic Conditions: The Asymmetric Effect of Prosperity and Recession." *American Political Science Review* 69:1240-54.
- Campbell, James E. 2008. "The Trial-Heat Forecast of the 2008 Presidential Vote: Performance and Values Considerations in an Open Seat Election." *PS: Political Science & Politics* 41:697-701.
- Dominitz, Jeff and Charles F. Manski, 1997. "Perceptions of Economic Insecurity: Evidence from the Survey of Economic Expectations." *Public Opinion Quarterly*, 61:261-287.
- Duch, Raymond M., Harvey D. Palmer, and Christopher J. Anderson. 2000. "Heterogeneity in Perceptions of National Economic Conditions." *American Journal of Political Science* 44:635-652.
- Fair, Ray C. 1978. "The Effect of Economic Events on Votes for President." *The Review of Economics and Statistics* 60:159-173.
- Hibbs, Douglas A. Jr., 2000. "Bread and Peace Voting in U.S. Presidential Elections." *Public Choice* 104:149-180.
- Hetherington, Marc. J. 1996. "The Media's Role in Forming Voters' National Economic Evaluations in 1992." *American Journal of Political Science*. 40:372-395.
- Holbrook, Thomas M. 2001. "Forecasting with Mixed Economic Signals: A Cautionary Tale."

- PS: Political Science and Politics* 34:39-44.
- Iyengar, Shanto. 1990. "Framing Responsibility for Political Issues: The Case of Poverty." *Political Behavior* 12:19-40.
- Iyengar, Shanto. 1991. *Is Anyone Responsible? How Television Frames Political Issues*. Chicago, IL: University of Chicago Press.
- Kenski, Henry C. 1977. "The Impact of Economic Conditions on Presidential Popularity." *Journal of Politics* 39:764-73.
- Kramer, Gerald H. 1971. "Short-term Fluctuations in U.S. Voting Behavior, 1896–1964." *American Political Science Review* 65:131–143.
- Lewis-Beck, Michael S. and Mary Stegmaier 2000. "Economic Determinants of Electoral Outcomes." *Annual Review of Political Science* 3:183-219.
- Lewis-Beck, Michael S. and Charles Tien. 2004. "Jobs and the Job of President: A Forecast for 2004." *PS: Political Science & Politics* 37:753–758.
- Lewis-Beck, Michael S. and Charles Tien. 2004b. "The Jobs Model Forecast: Well Done in 2004." *PS: Political Science & Politics* 38: 27-29.
- Lewis-Beck, Michael S., William G. Jacoby, Helmut Norpoth, and Herbert F. Weisberg. 2008. *The American Voter Revisited*. Ann Arbor: University of Michigan Press.
- Mughan, Anthony, and Dean Lacy. 2002. "Economic Performance, Job Insecurity, and Electoral Choice." *British Journal of Political Science* 32:513-533.
- Nadeau, Richard, and Michael S. Lewis-Beck. 2001. "National Economic Voting in U.S. Presidential Elections." *Journal of Politics* 63:159-181.

- Nannestad, Peter., and Paldam, Martin., 1994. "The VP-function: a Survey of the Literature on Vote and Popularity Functions after 25 years." *Public Choice* 79:213–245
- Peffley, Mark. 1984. "The Voter as Juror: Attributing Responsibility for Economic Problems." *Political Behavior* 6: 275–94.
- Stigler, George J. 1973. "General Economic Conditions and National Elections." *American Economic Review Papers and Proceedings* 63: 160 – 7.
- Tufte, Edward R. 1975. "Determinants of the Outcomes of Midterm Congressional Elections." *American Political Science Review* 69: 812–826.

Table 1. Values for Labor Market Data Measurements

Year	Job Growth (in thousands)	Wage Growth	Unemployment	GDP
1980	18.2	6.85	1.2	2.18
1984	340.3	2.03	0.8	2.75
1988	261.3	2.91	-0.4	1.91
1992	82.2	1.88	0.1	2.08
1996	235.5	2.44	-0.2	2.69
2000	157.8	3.13	-0.1	2.01
2004	183.9	2	-0.3	1.65
2008	211.6	2.93	1.8	0.01
2012	180	1.23	-0.6	1.02

Table 2. Ordered Logit Results of Job and Wage Growth on Retrospections, 1980-2012

Dependent Variable: Retrospective Sociotropic Economic Evaluation	
Independent Variables	Coefficient (clustered s.e.)
Wage Growth	.474** (.141)
Job Growth	.003* (.002)
Unemployment	-.838** (.259)
GDP Growth	.594** (.244)
Age	.0034** (.0017)
Personal Retrospections	.721** (.074)
Media Usage	.529** (.172)
Party	.131** (.051)
Union Membership	.326** (.106)
Family Income	.021 (.043)
Religiosity	(-.004 (.006)
Female	.276* (.194)
Education	.036* (.023)
Ideology	-.006 (.021)
Cut 1	4.486** (.752)
Cut 2	6.367** (.824)
N	21365
% Predicted Correctly	56.7
% Reduction in Error	23.2

Standard errors are in parentheses; **p<.05, *p<.10

Figure 1. Effect of Job Growth on Retrospective Economic Evaluations

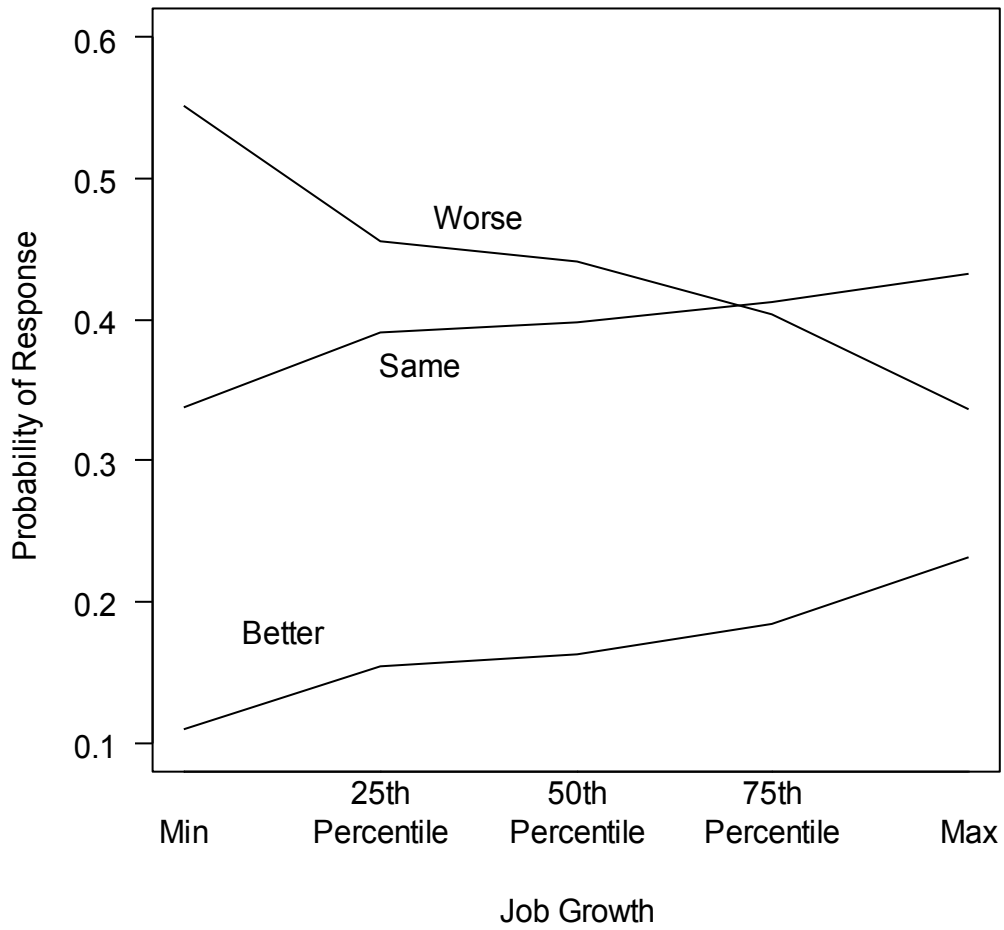


Figure 2. Effect of Wage Growth on Retrospective Economic Evaluations

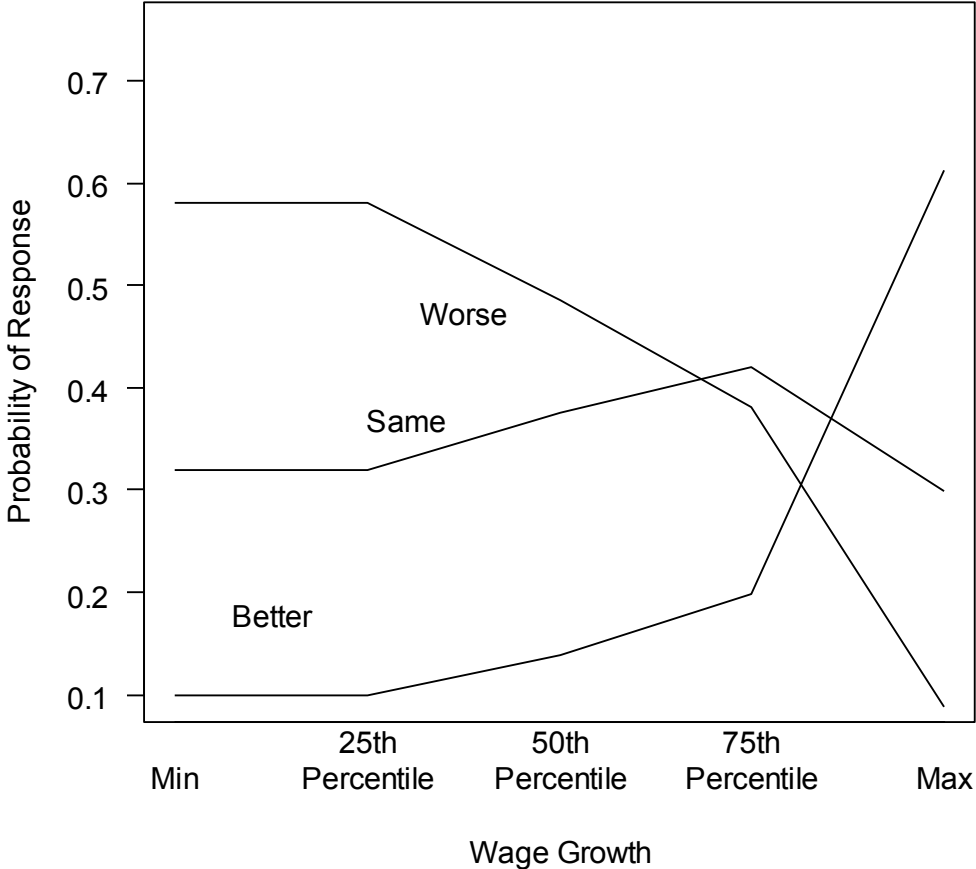


Figure 3. Effect of Unemployment on Retrospective Economic Evaluations

