1. Heterogeneous Workers and Occupations: Unemployment, Inequality and Crowding Out:
This paper analyzes the cyclical behavior of labor market variables that reflect agent heterogeneity in terms of education and the complexity of jobs they are occupying. To this purpose, a dataset is compiled from the CPS Outgoing Rotation Group including the within and between educational group wage premiums, the proportions of the high and low educated employed in complex and in simple occupations, and the proportions of the high and low educated unemployed, in addition to a measure of the crowding out of the low educated by the high educated in occupying simple jobs. A boom is accompanied by a rise in the employment in simple occupations, and a decline in the unemployment of the low educated, followed with a lag by a decline in the crowding out effect, an increase in the employment in complex occupations, and a decline in the unemployment of the high educated. Wage disparity across education groups widens with a lag, while within group exhibits acyclicality. To account for the observations, a framework that features search frictions is developed in which households are divided into those high and low educated, and firms post two vacancies: a complex that can be matched with the high educated, and a simple that can be matched with the high and low educated. On the job search is allowed. The results suggest that distinguishing the cyclical experiences of the high and low educated in terms of their wages, employment probabilities and exposure to unemployment entail the interaction between a wage determination process in which workers are rewarded over the cycle according to their education rather than their job qualification, and a labor reallocation process that considers the mismatch between the worker’s education level and the job qualification.

2. Monetary Policy, the Skill Premium and Unemployment Across Skills:
This paper addresses the implications of a monetary policy shock on the skill premium and unemployment across skills. A vector autoregressive analysis demonstrates that tightening reduces the skill premium, and induces a larger and more persistent increase in the unemployment of the low educated relative to the high educated. To account for these observations, the paper incorporates the model developed in the job market paper into a new Keynesian framework with two types of firms: wholesalers and retailers. Wholesalers post simple and complex vacancies with a similar matching mechanism to that in the job market paper, and produce and sell an intermediate good to retailers in a perfectly competitive market. Retailers differentiate and sell them to households in a monopolistically competitive market, and only some of them adjust their price every period. A shock to the nominal interest rate reproduces most of the observations.

3. Education versus Jobs’ Educational Requirements: Some Stylized Facts:
This paper derives a new set of stylized facts for the hours, wage premiums, employment and unemployment ratios of labor groups distinguished by their education, the qualification of their jobs, or a combination of both, in an attempt to determine which factor influences the cyclical behavior of these variables. The results reveal that the proportions of all those employed in complex occupations exhibit lagged procyclical and that of all those in simple is procyclical, regardless of the education level. The unemployment of the high educated is countercyclical with a lag, while that of the low educated is countercyclical. The between education group wage premium is procyclical with a lag, while the between occupation group and all the within education and occupation group wage premiums are acyclical. The hours of all the high educated are procyclical with a lead regardless of their occupation, while that of the low educated in complex exhibit lagged procyclical following that of all those employed in complex occupations, and that of the low educated in simple is procyclical following that of all those low educated.