Sample exam questions
Labor economics
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1. **Identification and inference**
   Define the terms identification and inference. Discuss how these terms can be useful to structure thinking about the tasks involved when using data to learn about economic phenomena.

2. **Difference-in differences**
   Consider the difference-in-differences approach to identification of causal effects. Describe in words:

   (a) The key assumptions driving this identification approach.
   (b) Possible reasons why these assumptions might be violated.
   (c) Possible ways you could test the plausibility of these assumptions.

3. **Top income inequality**
   Describe how historical tax records have been used to construct time series of top 1% income shares. Make sure to elaborate on data censoring and the Pareto distribution.

   What have these time series revealed about the development in Anglo-Saxon countries relative to continental Europe? What might explain these different developments?

4. **The competitive model**

   (a) Describe the competitive model of labor demand in words.

   (b) Recall the CES production function, $f(N_1, \ldots, N_J) = \left(\sum_{j=1}^{J} \gamma_j N_j^\rho \right)^{1/\rho}$, where N_j is the labor supply of workers of type j. Derive an equation for relative wages between different types of workers under the competitive model and with this production function.

   (c) Discuss how this model has been used to assess the impact of immigration, and of technical change, on wage inequality.