Econ 230B
Spring 2020
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Problem Set 2

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1. CEO Pay response to the 2013 US tax increase

The goal of this exercise is to repeat the Goolsbee (2000) analysis of CEO pay around the 2013 top tax rate increase (instead of the 1993 top tax rate increase as Goolsbee did).

a) First stage: Using online sources, calculate the change in the top marginal tax rate for labor income compensation generated by the 2013 tax increase including both the change in the Federal tax rate, and the Affordable Care Act surtax. How does the size of the change compare with the 1993 tax increase from Goolsbee (2000) study?

b) Timing of the reform: search online to figure out whether people knew in advance that the 2013 tax increase would take place? Is it reasonable to think that executives could respond to the tax change as they did with the 1993 tax change?

c) Expected behavioral responses: Based on what we have learned in class about behavioral responses and your response in question b), through what channel do you expect CEOs to respond in the short and the medium-run to the 2013 tax change?

d) Empirical analysis using CEO pay: use the execucomp data extract posted online (link here) to create a table similar to table 2 in Goolsbee for years 2011 to 2014. From this table, is there evidence of a behavioral response? What components of CEO pay seem to respond the most? Using numbers from this table and the answer to question a), how large is the elasticity of compensation with respect to the net-of-tax rate in the short-run (2012 vs. 2013) and in the medium-run (2011 vs. 2014)? [no standard error required]

2. Mobility of High Income US Taxpayers across States

The goal of this exercise is to estimate the mobility of high income US taxpayers across US states due to variation in state income top tax rates across states and over time. High income US taxpayers are defined as tax filers reporting Adjusted Gross Income (AGI) above $1m.

a) Find online information on the state top income tax rates across all states for **2017** incomes. List the five states with the highest top tax rates (group T) and the five states with the lowest top rates (group C) along with the top tax rates in those 5 states. (NOTE: do not

exclude zero tax states, if you have ties, keep the largest states in terms of population to have exactly five states in each group).

b) Use IRS state level data in excel format for tax year 2017 at (link here) to compare the fraction of high income earners in states in group C and states in group T. Fraction high earners is defined as the ratio of number of tax returns with AGI above $1m to all tax returns in group.

Under what assumption does this comparison identify the effects of state income tax rates on mobility? Is this assumption realistic (how could it be tested)?

If this assumption holds, what is the elasticity of the number of high earners with respect to the net-of-tax rate at the state level?

c) Find online information on the state top income tax rates across all states for **2001** incomes. Find the five states which had the largest increases in top tax rates (group T) and the five states which had the largest decreases in top tax rates (group C) from 2001 to 2017. List group C, group T, the 2001 and 2017 top tax rates in those states, and the change in top tax rates in those states.

d) Use IRS state level data in excel format for tax years 2001 and 2017 at (link here) to compare the changes in the fraction of high income earners in states in group T and states in group C from 2001 to 2017. Fraction high earners is again defined as the ratio of tax returns with AGI above $1m to all tax returns.

Under what assumption does this comparison identifies the effects of state income tax rates on mobility? Is this assumption realistic (how could you test it)?

If this assumption holds, what is the elasticity of the number of high earners with respect to the net-of-tax rate at the state level?

e) Let us use the California tax increase at the top of 2012 to identify the effects of top tax rates. Plot the number of fraction of tax filers with $1m+ AGI in California (treatment group) and Florida (control group) from 2010 to 2017. Estimate the DD effect using 2010-2011 as the control years and 2012-2017 as the treatment years. Does this DD estimate pass the parallel trend assumption? How could you construct a more convincing control group using information available from all the other states?

3. Tax Cuts and Job Act

The Tax Cut and Jobs Act (TCJA) passed on December 2017 eliminates the ability of public corporations to deduct compensation in excess of $1 million for each affected employee and imposes an equivalent 21 percent "excise tax" on similar employees at tax-exempt organizations. As a result, for these executives pay is not just subject to the top federal individual income tax rate (37%), its now subject to the corporate tax (21%) as well. The tax applies to a maximum of 5 employees per firm.

a) Assuming that the incidence of the tax is fully on executives, what's the combined top marginal income tax rate for an executive living in California (top marginal income tax rate of

13.3%) and affected by the reform?

b) Assuming the tax cannot be avoided, explain what type of behavioral responses one can expect from this reform. Use your knowledge of existing empirical evidence to respond to this question.

c) Suppose you have access to execucomp data on the compensation of the top 5 employees at large US firms for years 2016-2019. Propose a simple empirical method to analyze whether the behavioral responses you expect from b. effectively happened. State clearly the identification assumptions needed for the analysis to be valid.