Problem 1.
Here we will replicate some of the findings in Card, Dobkin, and Maestas (AER, 2008). I will email you a compressed version of an excerpt of the NHIS data they use as well.

First, rescale the age in quarters variable to be 0 at age 65, and also create the square of this rescaled variable. Create a dummy for being at least 65. Interact this dummy with both the new age in quarters variable and its square. Finally, create 3 new variables: the average insurance coverage for each age in quarters, and the same average for males and females separately for each age in quarters. (Hint: You can use egen, but don’t forget to only use one observation per age or age and gender group in the regressions.)

a. Now we will replicate part of NBER WP 10365, Table 3 (rows 1, 9, and 10 of columns 1–3). For each specification, include the “I am 65” dummy, and the age in quarters quadratic and their interactions with the “I am 65” dummy, and cluster the SEs by age in quarters. We will explore the effect of turning 65 on insurance coverage (variable: insured). Column 1 uses the age averages. Column 2 uses the micro data. Column 3 uses the micro data and also controls for gender, race/ethnicity, year dummies, and education dummies. Can you get close to the estimates in Table 3?

b. Suppose instead you run a model comparing those over 65 with those under 65 (a differences model), with the gender/education/race/ethnicity/education/year of survey controls. How different would your conclusion have been? What does this suggest about the effect at 65?

c. Run the specification of column 3 with the micro data, but with the outcomes hospitalized in the last 12 months (hosp_12m) and saw a doctor in the last 2 weeks (md_2wks). What do you conclude about whether the change in insurance status has effects on health?
c. Choose a counterfactual age at which to look for discontinuous changes in coverage. Recreate the RD estimates with controls for insurance coverage, hospitalization, and seeing a doctor in the last 2 weeks. What age did you pick and why? What do your results tell you about the Card, Dobkin, and Maestas findings?

Problem 2. Short answer

a. In class, we discussed the non-linear budget set (NLBS) approach to identifying the effects of taxes on individual’s labor supply. In particular, the theoretical models behind the NLBS method predict that when kinks in the budget set are convex to the origin, we should see people bunched at hours below the kinks, while if kinks are non-convex, we should find gaps near the kinks. We discussed at least two papers that look for evidence of kinking in administrative data. Describe results from one of these papers. Based on this evidence, do you think that the predictions of these models hold in the real world? What are some reasons why they might fail?

b. When we discussed means-tested safety net programs in the US, we discussed some reasons why in-kind programs may be preferable to cash transfers. Name at least two. Why might they not be preferable to cash transfers?

c. Describe 2 key features of TANF and/or major welfare waivers and how they differed from the preexisting AFDC program. Describe the expected effects of these TANF provisions on labor force participation and welfare participation (compared to AFDC). Name one empirical finding about each of these features.
d. Describe the important characteristics of a social insurance program. List these characteristics for 2 of the programs we discussed. What are some arguments for why we provide social insurance?

e. Social insurance programs must balance distortions with protection. Describe a piece of evidence about the distortionary effects on labor supply of one of the social insurance programs we discussed in class. Do you believe this evidence and why/why not? Describe a piece of evidence about the protective effects of one of the programs we discussed in class. Do you believe this evidence and why/why not?