Review of Economic Dynamics ••• (••••) •••–•••

Contents lists available at ScienceDirect

Review of Economic Dynamics

www.elsevier.com/locate/red

Male labor supply and generational fiscal policy ☆

Christian vom Lehn [a,*], Aspen Gorry [b], Eric O'N. Fisher [c]

[a] Brigham Young University, Department of Economics, 130 Faculty Office Building, Provo, UT 84602, United States
[b] John E. Walker Department of Economics, Clemson University, 228 Sirrine Hall, Clemson, SC 29634, United States
[c] Department of Economics, California Polytechnic State University, 03-444, 1 Grand Avenue, San Luis Obispo, CA 93407, United States

ARTICLE INFO

Article history:
Received 14 February 2017
Received in revised form 19 August 2017
Available online xxxx

JEL classification:
E24
E62
H24
H31
H6
J11
J22

Keywords:
Generational accounts
Taxes
Male labor supply
Life cycle

ABSTRACT

Between 1948 and 2000, hours worked by men in the United States fell by twenty percent. Using a life cycle model of labor supply with intensive and extensive margins, we assess how much of this decline can be accounted for by changes in tax and transfer policies. We use policy measures from the generational accounting literature, capturing the lifetime fiscal burdens faced by each male birth-year cohort. Changes in age demographics and fiscal policy account for 44% of the decline in hours worked. Policy alone explains approximately a quarter of the decline, both in the aggregate and across age groups.

1. Introduction

Since World War II, the amount of work done by men in the United States has greatly declined. Fig. 1 and Table 1 show the decline in annual total hours worked per person for men. From 1948 to 2000, total hours worked per person for men declined by twenty percent. Further, employed men are not only working fewer hours, but fewer men are working, as can be seen from the changes in employment per person in Table 1. This decline in hours worked has been particularly concentrated among younger and older men, when the extensive margin decision of whether or not to work is most important.

In this paper, we ask how much of the decline in male work can be accounted for by changes in generational tax and transfer policies in the US. We study a version of the life cycle labor supply model of Rogerson and Wallenius (2009), which

☆ We are grateful for comments received from Alan Auerbach, Frank Caliendo, Lei Fang, Carlos Garriga, Victor Rios-Rull, and Johanna Wallenius. We also thank participants in seminars at the 2015 Western Economics Association Meetings, 2015 Fall BYU-USU Macro Workshop, Federal Reserve Bank at Philadelphia, Federal Reserve Bank at St. Louis, 2016 Spring Midwest Macro Meetings, 2016 North American Econometric Society Summer Meetings, 2016 Society for Economc Dynamics Meetings, 2016 National Tax Association Meetings, 2016 Southern Economic Association Meetings, Aggregate Implications of Demographic Change Conference at ASU, 2017 Business CYCLE Workshop, and the 2017 QSPS Workshop for their helpful comments. We are also grateful to several anonymous referees for their helpful comments.

* Corresponding author.
E-mail addresses: cvomlehn@byu.edu (C. vom Lehn), aspen.gorry@gmail.com (A. Gorry), efisher@calpoly.edu (E.O. Fisher).

http://dx.doi.org/10.1016/j.red.2017.08.006
1094-2025/

Please cite this article in press as: vom Lehn, C., et al. Male labor supply and generational fiscal policy. Review of Economic Dynamics (2017), http://dx.doi.org/10.1016/j.red.2017.08.006

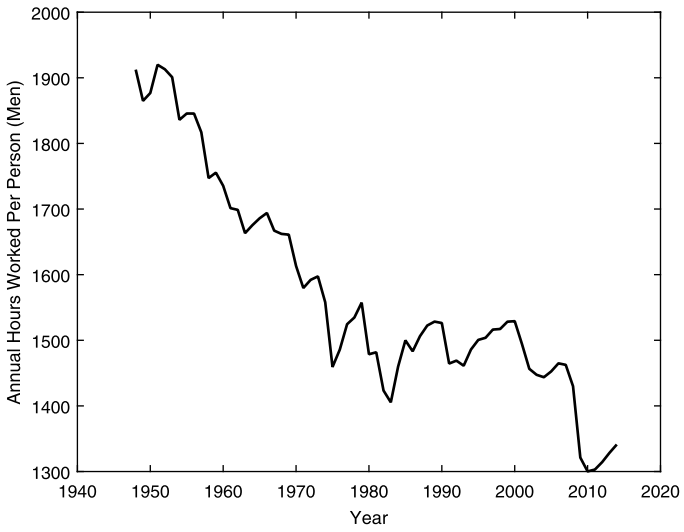

Fig. 1. Hours worked per person for men in the United States, 1948–2014. Annual hours worked are obtained based on estimates of weekly hours worked multiplied by 52. Further details regarding measurement are available in Appendix A.

Table 1
Percentage change in hours worked for men, 1948–2000.

	Aggregate	16–24	25–34	35–44	45–54	55–64	65+
Hours per person	−20	−32	−10	−11	−12	−27	−72
Employment per person	−14	−14	−3	−6	−7	−22	−63

Data are smoothed with HP filter (6.25) to avoid cyclical sensitivity in computing percentage declines. Appendix A describes how we measure hours and employment per person.

features both intensive and extensive margins, where different birth cohorts of men vary in the amount of lifetime taxes they pay to the government and the amount of lifetime transfers they receive back. We use the model to simulate life cycle labor supply profiles for each birth cohort from 1900 to 1991 based on each cohort's lifetime tax and transfer rate. To compare our predicted labor supply profiles with the data, we aggregate labor supply across cohorts to construct total hours worked in each year. The presence of the extensive margin in the model also implies that changes in taxes and transfer rates across generations may lead to different effects on labor supply at different ages. Therefore, we also compare predictions of hours worked by age group with the data.

Total taxes paid and transfers received by each generation of men are measured using estimates from the generational accounting literature, originally pioneered by Auerbach et al. (1991). This literature evaluates the impact of fiscal policy from the perspective of how the costs and benefits of policy accrue to each cohort of individuals instead of focusing simply on the impact at a given calendar year. Average lifetime tax rates for each generation are measured as the total present discounted value of taxes paid to the government divided by the total present discounted value of labor income received over a generation's lifetime. Lifetime transfer rates are computed similarly from data on transfer receipts from Social Security, Medicaid/Medicare and welfare programs.

This novel application of the generational accounts has several advantages. First, generational accounts policy measures include policies by gender, allowing us to use male-specific tax and transfer rates, which are more appropriate for our question. Second, they provide a transparent measure of how the burden of fiscal policy varies across individuals born in different years that is consistent with individual life cycle budget constraints. Moreover, these measures allow us to identify the degree to which tax revenues are transferred back to the household, an important ingredient of our model. Finally, as discussed in Gorry and Oberfield (2012), when individuals face a lifetime budget constraint, taxes faced at one age in the life cycle may influence labor supply at other ages. Thus, forward-looking lifetime tax rates may better account for the timing of how changes in fiscal policy impact aggregate male hours worked.

We find that the combination of changes in fiscal policy and the changes in the age composition of the population (demographics) account for 44% of the decline in hours worked per man from 1948 through 2000. Further, the timing of the decline in our results is consistent with observed declines in the data, matching well trends for the entire time period, with the exception of the 1970s and early 1980s. Holding demographics fixed, changes in policy alone account for roughly a quarter of the decline in hours worked.

Across age groups, changes in the age composition of the population and policy account for roughly 60% of the changes in hours worked by men under 16 and men over 55, compared to only 25% for prime aged males. Holding demographics fixed, policy generates roughly a quarter of the decline in hours worked for each age group. Incorporating the extensive

Please cite this article in press as: vom Lehn, C., et al. Male labor supply and generational fiscal policy. Review of Economic Dynamics (2017), http://dx.doi.org/10.1016/j.red.2017.08.006