NBER | NATIONAL BUREAU *of* ECONOMIC RESEARCH

James M. Poterba
President and CEO

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NSF POSE Review Committee
Dear Committee:

The National Bureau of Economic Research (NBER) enthusiastically supports the proposal for PolicyEngine to enhance the open-source research community that develops and uses tools for evaluating the impact of tax reforms and changes to spending programs on government revenue. NBER has a particular interest in PolicyEngine's tax calculator, which has already been very valuable in complementing, and supporting the development of, NBER software. A tool developed at NBER, TAXSIM, computes federal and state tax liabilities and marginal tax rates for respondents in various household surveys. It is widely used by economists and other social science researchers who are studying how households respond to tax incentives. Typical questions such researchers might address include "How do higher state marginal tax rates affect labor supply?" or "Does reducing the share of charitable contributions that can be deducted on a taxpayer's tax return alter the level of charitable giving?" NBER provides TAXSIM for free as part of a long running service to researchers and policy analysts who wish to go beyond revenue scoring and distributional analysis to study how taxes affect behavior. TAXSIM is also used by a number of government statistical agencies to calculate tax liability for survey respondents or to validate self-reported estimates of taxes paid.

TAXSIM accepts a user supplied dataset with information on households, and returns federal and state tax liabilities for them. It has been applied in more than 1,000 papers indexed in Google Scholar; about 100 new papers appear each year. TAXSIM is written in Fortran, and updating the code each year to include tax calculations for a new year is becoming increasingly difficult. TAXSIM currently covers 1960-2022. As PolicyEngine builds its tax calculator for recent years, NBER plans to combine the legacy TAXSIM functionality with current and future PolicyEngine functionality to create a single user interface. This combination of complementary calculators would provide a long term avenue of support for researchers. The combined calculator will be available, in keeping with current practice, as a free online service from NBER or as source code. The TAXSIM calculator is available today as an extension to Stata, SAS, and R, and any other language that can read and write csv files and runs under Windows, OSX and Linux.

When PolicyEngine and TAXSIM overlap and both provide tax calculators for a given year, NBER benefits substantially from the resulting testing opportunities. To evaluate a calculator's performance, there is no alternative to running "test subjects" through it. While spotting errors in isolation is difficult, with two calculators running side by side, both development teams can devote time to identifying the sources of, and then reconciling, disparities.

When updating and extending TAXSIM code, the NBER is an important beneficiary of the PolicyEngine open-source calculator. Further expanding the PolicyEngine ecosystem through grant support would have direct benefits for NBER, as well as much broader benefits for the economics and tax research communities.

Sincerely,

Cc: D. Feenberg

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