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## Medicare Expenditures, Social Security Reform, and the Labor Force Participation of Older Americans

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The changes to the Social Security Old Age benefits system introduced in the last decade, which will continue later this decade, have impacted individuals' labor supply and retirement decisions and, therefore, their health insurance coverage. This paper provides an empirical analysis of the effects on Medicare costs of the changes in the OA system resulting from the 1983 amendments.

If a large proportion of older Americans, either as a reaction to those policy changes or resulting from other socioeconomic or sociodemographic trends, decide to work in jobs covered by employer-provided health insurance, and then either decide to enroll in Medicare as their secondary payer or delay their enrollment into the system, the expenditures paid by Medicare will likely be lower on average per individual, as well as in total, than predicted without those policy changes.

This paper builds on two strands of literature: the literature that analyzes Medicare expenditures and the literature that studies the effects of the changes in the Social Security rules resulting from the 1983 amendments to the system. Neither literature addresses the role of older Americans' labor supply on Medicare expenditures, focuses on the difference for the system of having Medicare as a secondary payer versus as a primary payer, or the likely Medicare savings from individuals delaying enrollment.

In our empirical analysis we use the Medicare Current Beneficiary Survey (MCBS) for the 1992 to 2010 period. The MCBS is a rotating panel of a nationally representative sample of Medicare beneficiaries conducted by the Centers for Medicare and Medicaid Services (CMS). MCBS has two series of data files, the Access to Care series and the Cost and Use series. MCBS produces data for both cross-sectional and longitudinal analysis. For the purpose of this research, we are using the Cost and Use series. Using this data we empirically analyze the Medicare expenditures of individuals around retirement age as a function of their health insurance coverage

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and labor market attachment. Given the nature of the data, we account for the fact that a sizable proportion of individuals have zero Medicare expenditures. We do this by estimating a number of econometric specifications, choosing as our preferred one the Two-Part-Model. This model separates the process that results in a zero expenditure and the process that leads to a particular positive level of expenditures.

Our results show a significant effect of employment measures and insurance coverage types, suggesting a sizable effect of employment and insurance on Medicare expenditures, as well as on total health expenditures and on out-of-pocket health costs. In particular, we find that working individuals covered by employer-provided health insurance incurred Medicare expenditures 60 percent lower than those without that coverage, and are 20 percent less likely to have positive Medicare expenditures. We also find interesting results linked to the role of Medicare-HMO coverage, which affects Medicare expenditures in a negative and significant way. This is likely linked to the fact that individuals self-select into insurance types, even within the Medicare choices, that minimize their out-of-pocket costs while maintaining acceptable levels of coverage. We also find that most individuals seem to behave as out-of-pocket minimizers when making decisions about insurance and coverage.

Our quantitative econometric results using the MCBS data can be used to try to aggregate up to total effect for the economy of our findings. Taking into account that nearly a million Americans are covered by employer-provided health insurance while working and while on Medicare, we show savings linked to the secondary payer effect of around \$2.89 billion, and savings linked to the delay effect of more than \$333 million a year. While these quantitative results might not be very large compared with the size of the whole Medicare program, they are substantial, and likely to increase as older individuals work more and longer.

This research makes three contributions to the literature. First, to our knowledge, it is the first paper to address the issue of Medicare cost savings due to two aspects: the role of Medicare as a secondary payer versus primary payer; and the Medicare cost savings resulting from the delay in Medicare enrollment beyond age 65. Second, it is the first paper to address the relationship between labor supply and Medicare costs. Rather unexpectedly the focus on Medicare for once brings the good news of costs savings instead of increases. Third, at the policy level, it is the first paper to address the effects of the past and future reforms to the Social Security system on Medicare expenditures at the individual and aggregate levels, and establishes important linkages between work and Medicare expenditures, as well as insurance and Medicare expenditures.

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