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Demographic Groups Differ in Response to Substance Abuse Policies

If you raise the “price” of tobacco, alcohol, or illicit drugs, their consumption will drop; but this responsiveness to price varies somewhat across gender, race, and other demographic categories. For a number of years, government at the federal, state, and local levels and various private groups have campaigned or taken other measures, such as raising taxes on these products, to discourage their consumption. Drinking to excess, smoking, and drug addiction impose significant costs on society as well as on the individual users, including the cost of health problems, lost work, crime, and accidents, especially on the highway and at work.

These policies have produced some results. But, according to NBER Research Associates **Henry Saffer** and **Frank**

Chaloupka, “One shortcoming of these campaigns has been the lack of emphasis on potential demographic differences in response to public policies. If one or more demographic groups are relatively unresponsive to price, then alternative policies might be appropriate. Estimation of the effect of price, by demographic group, would be helpful in designing the mix of strategies that will be most successful in reducing overall alcohol and drug abuse.”

“There is clearly not a ‘one-size fits all’ strategy for discouraging youth smoking,” NBER Research Associate **Frank Chaloupka** and co-author **Rosalie Liccardo Pacula** write in **An Examination of Gender and Race Differences in Youth Smoking Responsiveness to Price and Tobacco Control Policies** (NBER Working

Paper No. 6541). In a related paper, **Demographic Differentials in The Demand for Alcohol and Illicit Drugs** (NBER Working Paper No. 6432), Saffer and Chaloupka look at differences in, and the impact of price changes on, the use of alcohol and illicit drugs for eight demographic groups. Their full sample includes more than 49,000 individuals from the National Household Survey of Drug Abuse: white-male-non-Hispanics, blacks, native Americans, Asians, Hispanics, women, and youth.

The Saffer-Chaloupka paper finds that blacks, native Americans, Asians, Hispanics, women, and youth are less likely to drink alcohol than white-male-non-Hispanics. Women and married people on average consume less alcohol than the other

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groups. An increase in income stimulates consumption of alcohol across all demographic groups except blacks, the authors find.

In the case of marijuana, native Americans, Asians, Hispanics, and women are less likely to use the drug. Adolescents are the biggest users. If a state decriminalizes the use of a small amount of marijuana, consumption increases (except for native Americans). Youths and Hispanics with higher incomes are more likely to smoke marijuana, but white males and blacks are less likely to do so when they are more prosperous.

price and other public policies designed to discourage tobacco usage, but differently for different groups. Using the 1992-4 Monitoring the Future surveys conducted by the Institute of Social Research at the University of Michigan of some 110,000 eighth, tenth, and 12th grade students, the authors find that young men are much more responsive to changes in the price of cigarettes than young women. A 10 percent increase in the price of cigarettes shrinks the number of young white men smoking by 8.6 percent, almost twice the effect for young

Clean indoor air laws — the restrictions on smoking in offices, restaurants, and so on — decrease smoking prevalence among young white males, but apparently not among other adolescents. Strict laws on youth access to cigarettes trim smoking rates among young blacks, but have no significant effect on smoking prevalence among white youth.

The authors note that between 1981 and 1990, the real price of cigarettes climbed 63 percent. Their model would have predicted a large drop in smoking rates for youths. In fact, smoking did decline 48.5 percent among black youths and 7.6 percent among young women. But it increased 5.9 percent for young whites and 9.8 percent for young males. From 1991 to 1996, smoking rates among young men were higher than those for young women.

This, the authors conclude, is not so surprising considering that the tobacco industry nearly tripled its advertising and promotional expenditures at the same time that prices were rising. The increase in expenditures may have offset the jump in prices. “To the extent that advertising and promotional activities target specific youths more than others,” Chaloupka and Pacula write, “this increase in expenditure is likely to influence youth smoking rates differently as well.”

— David R. Francis

“A 10 percent increase in the price of cigarettes shrinks the number of young white men smoking by 8.6 percent, almost twice the effect for young women.”

As for cocaine, Asians, women, and married people use less of the drug than other groups. A higher price of cocaine shrinks consumption for all but blacks and Asians, the authors find. Blacks, native Americans, Hispanics, and youth are more likely to use heroin, and women and married people less likely than other groups. Another interesting finding of this study is that policies which hike alcohol prices also reduce drug abuse. Similarly, policies which increase drug prices shrink alcohol use.

In the Chaloupka-Pacula paper, the authors find that youths do respond to changes in

women. That same price increase decreases the prevalence of smoking among young black men by 16.5 percent. But price does not affect the probability of smoking for young black women.

State anti-tobacco activities decrease smoking by white youths, but have no significant effect on young blacks, particularly black males. On the other hand, smoker protection laws, enacted by states generally believed to be less aggressive in their efforts to discourage smoking, mean more smoking by young blacks, but not by white youths.

The Diversification Discount and Inefficient Investment

Nothing demonstrates that business conditions undergo continuous upheaval quite so well as the parade of fashions in corporate structure. In the 1960s, the preference for synergy and diversification fueled an urge to buy up firms and conglomerate. In the 1990s, the preference for tightly focused businesses has fueled an urge to spin-off and carve-out. Research on corporate diversification has followed a similar progression. Early work concluded that a conglomerate, or diversified firm, could increase its profits by pooling cash flows from different lines of business and directing them to their most profitable use. Shares of the diversified firm would sell for more in the equity markets because it generated superior returns. But more recent work suggests that shares of diversified firms sell at a discount, possibly because managerial self-interest makes it difficult or impossible to direct internal cash flows to their most profitable use.

In **The Cost of Diversity: The Diversification Discount and Inefficient Investment** (NBER working Paper No. 6368), **Raghuram Rajan, Henri Servaes, and Luigi Zingales** find that the “excess value” of diversified firms relative to single segment firms is, on average, negative at -9.6 percent. There is also a wide variation in excess

value, with a number of conglomerates trading at a premium, which the authors try to explain.

The authors describe how a discount might arise in a business in which there are two divisions and headquarters has limited power over division managers. Each division must choose one of

The authors show that managers are more likely to prefer the investment that benefits themselves rather than the company as a whole in firms with large differences in divisional resources or investment opportunities. Headquarters can counter the effects of managerial self-

“Recent work suggests that shares of diversified firms sell at a discount, possibly because managerial self-interest makes it difficult or impossible to direct internal cash flows to their most profitable use.”

two investments. The first takes advantage of cooperative efforts between the two divisions. The Gucci handbag and Gucci perfume lines, for example, make cooperative investments that preserve the brand’s reputation for quality. This cooperative investment will raise the profits of the whole company if both divisions choose it. The second investment generates lower returns for the business as a whole because it does not take advantage of the benefits from cooperation. For instance, one of the divisions could run down the quality of the brand name in order to boost its own profits at the expense of the firm’s. Though it is a poor choice for the diversified business as a whole, it is attractive to division managers, perhaps because it enhances their outside visibility and increases their value on the job market.

interest by using its discretionary funds to influence managerial investment choices, thus preventing “greater average investment distortions.” But peace has its price—headquarters can induce division managers to act in the interests of the firm as a whole only by transferring funds from divisions with more profitable investment opportunities to divisions with less profitable ones. The extent of these transfers “in the wrong direction” increase in the diversity of size-weighted investment opportunities of the divisions in the conglomerate.

The authors use 108,050 firm-segment-years from the 1979-93 Compustat Business Segment Information database as the source of the asset, capital expenditure, and depreciation data forming the backbone of their tests. Financial firms, and those with total sales less than

\$20 million, are excluded. The book value of assets and the ratio of market value to the cost of asset replacement value are used to track the relative value added by headquarters' allocation of funds to each segment within

each firm. When they attempt to explain the value added through allocation using a measure of the variation of investment opportunities in each firm's operational segments, the results suggest that an increase in diversity does

indeed have a large and statistically significant negative effect on a diversified firm's market value. It also explains well the direction of apparent transfers within the conglomerate.

— Linda Gorman

Shorter Hours Raise Living Standard of the Poor

Many Americans feel they are working way too hard and for far too many hours. The stress is real enough. But the length of the workday has dropped considerably over the past century. The typical worker in the 1880s toiled away for ten hours a day. His 1940s peer labored for eight hours. Time diary studies suggest that today's average employee logs in less time at work than a strict 9-to-5 schedule. The steep decline in hours worked is an under-appreciated improvement in American living standards.

Yet the gains in hours worked haven't been distributed equally. In the past, the lowest paid workers toiled away the longest while

Costa finds that workers in the 1890s earning less than 90 percent of all workers labored nearly 11 hours while those making more than 90 percent of all workers labored for almost 9 hours. In 1991, the comparable figures were roughly 7.5 hours and 8.5 hours, respectively. "I find that although hours of work have fallen for all workers, the decline was disproportionately large among the lowest paid workers," Costa writes.

Like the distribution of income, the distribution of hours worked has implications for trends in income inequality. In essence, the common wage and wealth data for measuring inequality may underestimate long-run improvements in living

described earlier could be attributed to differences in hours worked. "In the past an inegalitarian distribution of work equalized income whereas today it magnifies earnings disparities," says Costa.

A related paper, **The Wage and the Length of the Work Day: From the 1890s to 1991** (NBER Working Paper No. 6504), delves deeper into time at work and inequality. For example, in addition to the role of hours worked in earnings inequality among men from 1973 to 1991, Costa finds that the same phenomenon accounts for more than half of the earnings inequality among women and 17 percent of the increase in total household earnings inequality among husband and wife households.

What is behind changes in hours worked? In both papers, Costa casts doubt on the idea that state legislative actions limiting the workday had much impact. The big shifts in hours worked was in effect by the 1920s, yet laws limiting the workday applied mostly to women and to a few men in dangerous industries until the 1930s. Instead,

"In the past, the lowest paid workers toiled away the longest while now it's the high wage workers that put in the most hours."

now it's the high wage workers that put in the most hours, according to NBER researcher **Dora Costa**. In **The Unequal Work Day: A Long Term View** (NBER Working Paper No. 6419),

standards among low paid workers. For instance, Costa calculates that between 1973 and 1991, 26 percent of earnings inequality among male workers between the top and bottom groups

changes in the willingness of workers to supply their labor dominated. In the past, worker hours were very sensitive to changes in pay. From 1890 to 1919, real wages increased by 43 percent and the work day fell from 10 hours to 8 hours.

In contrast to a century ago,

increases in the hourly wage no longer encourage people to take more time away from the office or factory. For one thing, workers are not as time poor as they once were. For another, with incomes higher than before, the impact of a wage hike is smaller. "Regardless of the reason for the

change in the distribution of work hours the results of this paper imply that although the rich and the poor will always differ in terms of income, income differences no longer mean that the poor have less time for fun," says Costa. Now that's progress!

— Chris Farrell

Immigrants Enjoy Better Social Security Returns than U.S. Natives

Social Security is often billed as an insurance plan for retirement that bases the benefits paid out squarely on the contributions paid in. But there is also an element of redistribution within the system. The formula is meant to help people with low lifetime earnings, but its effects can be haphazard. A recent NBER Working Paper aims to inform policymakers about one such transfer, that between U.S. and foreign born participants.

In **Social Security Benefits of Immigrants and U.S. Born** (NBER Working Paper No. 6478), **Alan Gustman** and **Thomas Steinmeier** investigate the application of the Social Security benefits formula to immigrants and U.S. natives. They show that under current rules, immigrant workers realize a higher rate of return on payroll tax contributions than U.S. natives. This difference cannot be justified on grounds of income or wealth differences.

The combination of two features of Social Security lead to this

anomaly. First, the Social Security formula transfers benefits toward those with low lifetime covered earnings. Second, all years that an immigrant spends outside the United States are treated as years of zero income. To calculate benefits, Social Security uses a simple average of lifetime earnings, the mean of the highest 35 years of covered indexed earnings. Low lifetime earnings may be the result of a low earnings level in each

Security benefits for both groups at representative ages and for comparable earnings. Much of their work is based on a sample of the population of those born between 1932 and 1941 — and thus close to retirement — from the Health and Retirement Study (HRS). The paper applies a series of money's-worth tests to show that the benefits formula replaces a higher fraction of total earnings for immigrants than for the native

"For their first two decades of work in the United States, immigrants earning \$10,000 or more per year receive 70 to 80 percent of the Social Security benefits paid for a full work life by native born Americans."

year of work. They also can result from limited years of covered employment. The formula treats immigrants who have spent only part of their working life in the United States as having lower average earnings than they enjoyed in each year they worked.

This means that each dollar of payroll tax contributions generates higher benefits for foreign born than U.S. natives. Gustman and Steinmeier compute Social

born. Taking those aged 51 to 61 years in 1992, foreign born men at retirement will have paid on average 76 percent of the taxes paid by U.S. born. But they and their family will receive 83 percent of the benefits.

High earning immigrants who have worked in the U.S. for between 10 and 20 years benefit most from these procedures. For their first two decades of work in the United States, immigrants

earning \$10,000 or more per year receive 70 to 80 percent of the Social Security benefits paid for a full work life by native born Americans.

This transfer between U.S. and foreign born is not justified on the basis of need. Average income and wealth accumulation for immigrants in the HRS sample are very similar to the comparable means for U.S. natives. The mean income of immigrants exceeds the mean income of U.S. born by 3 percent. Gustman and Steinmeier say that there is no rationale for applying an across-the-board formula that benefits immigrants. There are far more efficient ways to help poor immigrants.

The researchers explore an alternative policy proposal,

whereby Social Security benefits are pro-rated based on the fraction of the worker's life actually spent in the United States. Under such a system, an immigrant and a U.S. native who have the same earnings in each year would receive the same return on their Social Security taxes. This would reduce Social Security benefits paid to immigrants in the sample by 7 percent. Pro-rating based on a 35-year base period would reduce the present value of benefit payments to the 1932-41 born immigrants by \$7.5 billion. Foreign born men on average would pay 76 percent of the taxes paid by U.S. born, and would receive 78 percent of the benefits for their families. Thus, redistribution towards immigrants is much reduced. But progres-

sively higher benefits for low-wage workers, both U.S. and foreign born, are maintained.

Despite enjoying a higher return than native born, immigrants in the HRS group just reaching retirement age will, on average, have paid in slightly more in taxes than they will receive in benefits. However, the difference between taxes paid and benefits received for native born members of the HRS cohort will be even larger than it is for immigrants. Because immigrants make an overall net positive contribution to Social Security, it is in the selfish interest of native born to include immigrants in the Social Security system, even though the system favors immigrants relative to U.S. natives.

— Andrew Balls

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