

## IN THIS ISSUE

- What Determines the “Reservation Wage” of Unemployed Workers?
- Scale and Skill Among Active Portfolio Managers
- Long-Term Effects of a Student’s High School Experience
- Earnings Consequences of the Clean Air Act
- In-Work Tax Credits and the Safety Net
- How Durable are Social Norms?

## What Determines the “Reservation Wage” of Unemployed Workers?

The pace at which unemployed workers adjust their reservation wage — the lowest wage they will accept at a new position — over a spell of unemployment is a potentially central determinant of whether, and how quickly, they find a job. Despite this, evidence on the behavior of reservation wages over the spell of unemployment remains scarce. It often relies on cross-sectional data, which may be biased by the differences in the composition and search behavior of the pools of unemployed workers with spells of different lengths. In **A Contribution to the Empirics of Reservation Wages** (NBER Working Paper No. 19870), **Alan Krueger** and **Andreas Mueller** examine reservation wage patterns using high-frequency longitudinal

data on self-reported reservation wages for a sample of 6,025 unemployment insurance recip-

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“...reservation wages decline at a modest rate over the unemployment spell...”

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ients in New Jersey. Reservation wages appear to be of some consequence: workers are 24 percentage points more likely to accept an offer that is equal to or exceeds their reservation wage than to accept a job with a wage below the threshold.

Self-reported reservation wages decline at a modest rate over the unemployment spell, with point estimates ranging from 0.05 to 0.14 percent per week of unemployment. After a year of unemployment, the reservation wage is only 2.5 to 7 percent lower than at the start

of the unemployment spell. The decline in reservation wages is driven primarily by individu-

als over the age of 51, for whom the cost of accepting a lower-paying job is less than the cost for those who plan to spend more time in the labor market, and individuals with personal savings of more than \$10,000, who revise their reservation wage downward as they exhaust their assets. There is no evidence of a decline in reservation wages for those who rely exclusively on unemployment insurance benefits for income support, even when benefits are about to expire.

The results suggest that a

sizable proportion of individuals are reluctant to reduce their reservation wage despite extended spells of unemployment. Relative to a calibrated

job search model, the reservation wage of unemployed workers starts out too high and declines too slowly. This is consistent with many workers per-

sistently misjudging their prospects, and with reservation wages “anchored” on previous wages.

— Claire Brunel

## Scale and Skill Among Active Portfolio Managers

Financial economists and industry officials have long studied and debated the extent to which the performance of actively managed mutual funds is affected by their size and by the skills of their managers. In **Scale and Skill in Active Management** (NBER Working Paper No. 19891), **Lubos Pastor, Robert Stambaugh,** and **Lucian Taylor** find that the growing size of the active mutual fund industry has had a significant negative impact on actively managed funds’ performance. They also find that fund managers’ skill has improved over time, yet average mutual fund performance has not. The reason is that skill has not improved quickly enough to offset the downward pressure from industry growth. The authors show that performance of a typical active mutual fund declines over time mostly because of the increasing scale of the fund industry.

To explore what determines returns on actively managed funds relative to passive

benchmarks, the authors analyze performance and scale data from the Center for Research

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in Security Prices (CRSP) and Morningstar for 3,126 funds from 1979 through 2011. This is a period of tremendous growth for the mutual fund industry in general.

The study finds strong evidence of decreasing returns to scale at the industry level. The negative correlation between industry size and fund performance is more pronounced in funds with higher turnover and higher volatility, as well as in small-cap funds. “These results seem sensible since funds that are aggressive in their trading, as well as funds that trade illiquid assets, will see their high trading costs reap smaller profits when competing in a more crowded industry,” according to the authors.

The authors also find that

the skill of the active management industry has increased significantly over time, but

the improvement in skill has failed to boost overall average fund performance over the years because of the steady growth of the industry’s size. The authors measure skill by performance against passive benchmarks after adjusting for any adverse effects of fund or industry size.

Trends suggest that new active funds entering the industry are more skilled, on average, than the existing active funds. As a result, younger funds outperform older funds in a typical month. Indeed, funds up to three years old outperformed funds ten years and older by 0.9 percent a year. Funds aged between three and six years also outperformed the oldest funds.

— Jay Fitzgerald

## Long-Term Effects of a Student's High School Experience

To promote diversity in higher education, several states offer automatic admission to students who graduate at the top of their high school class. A new study, **Can You Leave High School Behind?** (NBER Working Paper No. 19842), exploits one such automatic admissions policy to study the effects of high school characteristics on college outcomes. The authors, **Sandra Black, Jane Arnold Lincove, Jenna Cullinane, and Rachel Veron**, find that high school characteristics affect performance in college, and that “[h]igh school variables measuring campus socioeconomic status (SES), academic preparation for college, and school resources all are related to college performance, as measured by freshman year GPA (grade point average).”

The study focuses on Texas, where a rule enacted in 1997 grants the top 10 percent of graduates from each in-state high school automatic admission to the University of Texas (UT) at Austin. This increased the diversity of UT students, but it also raised concerns about the preparation of students who came from lower-performing high schools. The authors study nearly 50,000 freshmen entering UT-Austin from 2002 to 2009, and find that high school characteristics affect students' college performance. The percentage of students in free/reduced

price lunch and special education programs at a student's high school is negatively associated

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“Observable dimensions of high school quality explain approximately 20 percent of the variation in freshman GPA...”

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with freshman GPA, whereas the percentage of students taking Advanced Placement exams and SATs, more experienced teachers, and larger districts exhibit positive associations. “Observable dimensions of high school quality explain approximately 20 percent of the variation in freshman GPA,” according to the authors.

The factors having the largest impact, according to one of the statistical models developed by the authors, are the size of the district (or district economies of scale) and student SES. A one standard deviation increase in district size is associated with a rise of 0.27 grade points in a freshman's GPA. However, a one standard deviation increase in the percentage of free/reduced lunches served at a school is associated with a decrease of 0.10 grade points. The authors report smaller effects of racial composition, student mobility, and the fraction of students in special education programs.

The authors find very little evidence that the impact of high school quality declines as students advance in college. The same high school characteristics that best predict students' GPA performance as freshmen also

predict it in their sophomore and junior years. The authors observe that “[t]here are a few

notable examples that suggest that within-school changes in high school variables have different effects on different types of students.” For example, high schools' percentage of students receiving a free/reduced lunch and levels of teacher experience are associated with the college GPA of females, but not of males.

Although the effect of any one of these high school characteristics is small, their cumulative effect can be significant. For instance, an 18-year-old Hispanic female whose mother has a high school education, whose family income is between \$20,000 and \$40,000, and who has \$1,000 in unmet financial need, would be predicted to earn a GPA of 3.21 in her freshman year if she had attended one of the highest ranked high schools in greater Houston. If she attended one of the lowest ranked Houston high schools, her predicted GPA would be only 2.30.

The authors conclude that “our results support the hypothesis that high school quality matters in college and continues to influence students throughout their college careers.”

— Laurent Belsie

## Earnings Consequences of the Clean Air Act

The 1970 Clean Air Act Amendments (CAAA) in the United States limited the maximum allowable concentration of airborne total suspended particulates (TSP). As a result, the Environmental Protection Agency designated counties, or more specifically, air regions, as having “nonattainment” status under the new regulations if the monitored TSP concentrations exceeded the limit of 75 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Counties for which TSP levels were below the threshold were designated as “attainment” counties. Comparisons between attainment and nonattainment counties in the years after implementation of the regulation show a reduction in nonattainment counties’ ambient TSP levels of about 10 percent.

**In Every Breath You Take — Every Dollar You’ll Make: The Long-Term Consequences of the Clean Air Act of 1970** (NBER Working Paper No. 19858), Adam Isen, Maya Rossin-Slater, and W. Reed Walker exploit this regulatory

variation in TSP levels over time and across counties to examine whether differences in exposure

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to TSPs at birth are correlated with long-run human capital measures at age 30. The authors link county of birth to administrative earnings records for residents of 24 states and conclude that a 10 percent decrease in TSPs in the year of birth is associated with a 1 percent increase in annual earnings at age 30. This translates to about \$260 per year in 2008 dollars. Most of the difference in earnings capacity results from differences in the number of quarters worked rather than from differences in full-time wages. In 1972, there were about 1.5 million births in nonattainment counties, implying a cumulative earnings increase of about \$6.5 billion annually per cohort. Assuming these effects are persistent over the lifetime earnings profile, the authors calculate that improved

early-life air quality is correlated with total lifetime earnings gains of \$4,300 per individual.

The authors use administrative earnings records from the Census Bureau’s Longitudinal Employer-Household Dynamics file to link city and state of birth with later life earnings measures. The authors combine the administrative records with data from the Bureau of Economic Analysis’s Regional Economic Information System and the National Center for Health Statistics to control for observable, time-varying determinants of later life outcomes that may be correlated with pollution in the year of birth. They find no evidence that family and child characteristics are differentially changing across counties in a manner correlated with the policy implementation.

— Linda Gorman

## In-Work Tax Credits and the Safety Net

Subsidies to improve the welfare of low-income families in the United States increas-

ingly take the form of transfers that are linked to employment. The Earned Income Tax Credit

(EITC) is now the most important cash transfer program for lower income working families. In

2010, almost 20 percent of tax filers received the EITC, at a total cost of \$60.9 billion. The goal of these programs is to raise the incomes of families at the bottom of the income distribution. In **Do In-Work Tax Credits Serve as a Safety Net?** (NBER Working Paper No. 19785), **Marianne Bitler, Hilary Hoynes, and Elira Kuka** evaluate the extent to which the EITC addresses variation in economic need over the course of the business cycle.

The defining feature of the EITC is that it requires positive earnings for eligibility. Given that requirement, the dynamic pattern of EITC benefits over the business cycle is theoretically ambiguous. On the one hand, a downturn may lead to higher rates of EITC participation if downturn-induced decreases in earnings move taxpayers into income ranges that make them eligible for the EITC. On the other hand, a

downturn could reduce the rate of EITC participation if the associated decline in employ-

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ment results in some individuals, who previously had low earnings and qualified for the EITC, falling to zero earnings.

Using administrative data from the Internal Revenue Service for years between 1996 and 2008, the authors exploit differences in the timing and severity of economic cycles across states. Their estimates suggest that the net effect of economic fluctuations on EITC beneficiaries varies by family types. A higher aggregate unemployment rate is associated with an increase in the number of EITC recipients and in the total dollar amount of credits for married couples, but the effects

are insignificant for single earners. This suggests that an adverse labor market shock reduces the

earnings of married couples, leading to more participation in the program, but does not lead many households to lose earnings entirely. Meanwhile, job loss for a single earner eliminates family earnings altogether, leading to a reduction in EITC participation. The authors find similar patterns, using more aggregate data, during the Great Recession. The results suggest that the EITC serves as an automatic stabilizer for married couples with children but not for households with a single parent and children, who constitute the majority of recipients.

— Claire Brunel

## How Durable are Social Norms?

Recent studies find that individuals' social norms, as evidenced by their opinions and behavior, as well as social trust, can be transmitted from one generation to the next within the same cultural setting. Many observers believe that this transmission process is based on parental socialization during childhood.

However, there is also evidence that the current environment plays an important role in shaping an individual's social norms.

In **How Durable are Social Norms? Immigrant Trust and Generosity in 132 Countries** (NBER Working Paper No. 19855), authors **John Helliwell, Shun Wang,**

and **Jinwen Xu** use data from large samples of migrant and non-migrant respondents to the Gallup World Poll to explore the links between immigration and social norms. They find that migrants tend to make social trust assessments that mainly reflect conditions in the country where they now live, but they also



uncover a significant effect of their countries of origin. The latter effect, which is known as the “footprint effect,” is one-third as important as the effect of local conditions. Once the footprint effect is accounted for, immigrants on average have social trust levels equal to the levels of those who were born in the country.

The authors also find that the altruistic behavior of migrants, as measured by the frequency of their donations in their new countries, is strongly determined by social norms in their new countries, while also retaining some effect of the

levels of generosity found in their birth countries.

To show that the durabil-

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“... migrants tend to make social trust assessments that mainly reflect conditions in the country where they now live...”

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ity of social norms is not simply attributable to delays in learning about a new environment, the authors report a complete absence of footprint effects for immigrants’ confidence in political institutions. When asked specific questions about the institutional features of their new countries, immigrants’ answers reflect the characteristics of those institu-

tions, with no carryover from the institutions in the countries where they were born.

Taken together, the authors’ findings support the notion that social norms are deeply rooted in long-standing cultures, yet are nonetheless subject to adaptation when there are major changes in the surrounding circumstances and environment.

— Les Picker

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