

### Is the football draft rational?

The National Football League's annual player draft is one of the more interesting job-matching institutions. As an additional benefit to analysts, it is a relatively transparent mechanism with well-defined rules and widely reported outcomes. Cade Massey and Richard H. Thaler in their National Bureau of Economic Research (NBER) working paper *Overconfidence vs. market efficiency in the National Football League* investigate how efficient the draft might be from an economic perspective and what might be behind any inefficiencies from a decision-making perspective.

Their economic conclusions are that earlier draft choices are irrationally costly in two respects. First, the team bidding up in the draft order generally gives up a more valuable set of picks from later in the draft and, second, the earlier draft picks are paid quite a bit more when they sign with the team. Although earlier picks are higher performers, Massey and Thaler find that the fall-off in performance is not nearly as steep as the decline in price as the draft progresses. Furthermore, the value of a player in terms of compensation relative to performance actually increases as the first round of the draft unfolds. That is, "late-first-round picks generate more value than early-first-round picks."

As far as the psychological underpinnings of this inefficiency go, Massey and Thaler describe the possibilities as "an embarrassment of riches": nonregressive predictions (predictions about player value are more extreme and varied than the available evidence shows), over-confidence (people's belief that their knowledge is

more precise than it really is), the "winner's curse" (winning bidders are more likely to be those who have overestimated a value), and false consensus (the tendency to believe that others' evaluations are more similar to one's own than is the case).

### The burden of knowledge

Innovation, most observers would agree, is a fundamental driver of technological progress. Thus, it would seem, innovators are an important resource. It is disconcerting, therefore, to discover in Benjamin F. Jones' NBER working paper *Age and great invention* that "individual innovators are productive over a narrowing span of their life cycle, a trend that reduces—other things equal—the aggregate output of innovators."

Jones examined the great achievements—those that merited Nobel prizes or mention in the standard almanacs of technology—and determined the age at which the innovators made their first contributions. That age, according to Jones, had risen by about 6 years over the course of the 20th century. While part of the trend could be attributed to the general aging of the population, the basic driver was "a substantial change in the life-cycle productivity of innovators. Specifically, the age at which the young begin their innovative careers has risen by approximately 8 years. Meanwhile, there has been no compensatory increase in creative potential beyond early middle age."

Jones attributes the increase of the age at which great innovation occurs to the fact that innovators must build in previously accreted knowledge and thus must necessarily allocate a great

deal of their early careers to education. This is a theme Jones explores at greater length in another working paper, *The burden of knowledge and the "death of the Renaissance man": Is innovation getting harder?* That paper explores the manifold implications of the increasing body of knowledge:

"If knowledge accumulates as technology progresses, then successive generations of innovators may face an increasing educational burden. Innovators can compensate by seeking narrower expertise, but narrowing expertise will reduce their individual capacities, with implications for the organization of innovative activity—a greater reliance on teamwork—and negative implications for growth."

This "burden of knowledge," according to Jones, explains not only the increasing age at great innovation noted in his earlier paper, but also the increasing prevalence of academic collaboration and the lengthening of the time to complete doctorates. And, of course, the narrowing of expertise is, by definition, "the death of the Renaissance man." □

We are interested in your feedback on this column. Please let us know what you have found most interesting and what essential readings we may have missed. Write to: Executive Editor, *Monthly Labor Review*, Bureau of Labor Statistics, Washington, DC, 20212, or e-mail, [mlr@bls.gov](mailto:mlr@bls.gov)