



Making Apprenticeships Work

Five Policy Recommendations

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Foreword

JOHN BAILEY

Recent economic data suggests the nation's economy has recovered, with steady employment growth and falling unemployment. But these trends obscure a deeper structural skills gap in the labor force that will only widen with automation and globalization.

According to the National Federation of Independent Business, [54 percent](#) of small-business owners reported difficulty finding qualified workers. There are a [quarter-million job openings](#) for software developers and [half a million](#) unfilled jobs that require tech skills. The rise of artificial intelligence is raising similar concerns -- even if the robots [don't take our jobs](#), we do not currently have the infrastructure to prepare the workforce for the millions of new and modified jobs that AI will create.

In response, we are witnessing the emergence of a "new skills marketplace" that will have dramatic implications for the future of education, human capital development, and the workforce.

One area receiving strong bipartisan interest is apprenticeships. Apprenticeships typically involve an employer and a training provider offering hands-on training to workers. Work-based learning enables students or workers to "earn while they learn," while employers can train workers on the job for the exact skills they need.

In many ways, the apprenticeship model can help answer the questions that keep lawmakers and innovators up at night -- questions about how we can reimagine our approach to higher education in ways that expand opportunity, promote socioeconomic mobility, and align more closely with job outcomes. They also offer older workers a pathway into new jobs without the loss of income that would come from enrolling in a traditional higher education program.

This paper outlines a vision for policy change that can help us rethink that approach -- not just with regard to apprenticeships, but the country's entire system of education and workforce development.

The intention of this paper is to spark discussion and debate about the role of work-based programs in preparing today's workforce to meet tomorrow's challenges. We look forward to the discussion.

John Bailey is a Visiting Fellow at the American Enterprise Institute, where he hosts the "New Skills Marketplace" podcast. He previously served as an advisor to President George W. Bush on education and workforce policy.

About the Authors

RYAN CRAIG

Ryan Craig is Managing Director of University Ventures, a unique investment firm reimagining the future of higher education -- and creating new pathways from education to employment. A frequent speaker, writer, and analyst on the intersection of education and work, Ryan's commentary has appeared in PBS News Hour, The New York Times, The Wall Street Journal, Forbes, EdSurge, Inside Higher Education, TechCrunch and VentureBeat, among others. He has also served as an advisor to the U.S. Department of Education, UCLA extension, and as Vice President for Columbia University's online education company. Ryan is the author of *College Disrupted: The Great Unbundling of Higher Education* and the upcoming *A New U: Faster + Cheaper Alternatives to College*.

TOM BEWICK

Tom Bewick is President of the Transatlantic Apprenticeship Exchange Forum and co-founder of Franklin Apprenticeships -- a capacity-building organisation and apprenticeship tech consultancy based in the United States. He is a former adviser on apprenticeships to the British Government and author of [several publications](#), including "World-Class Apprenticeships: are they the answer to the age of stagnation?" Tom is a regular visitor to the United States, supporting several major employers and states, as his company works with various organizations to devise and implement models of delivering flexible, high-quality apprenticeships in the workplace.

Today's dynamic labor market is fueling an unprecedented sense of urgency among policymakers and executives alike.

Executive Summary

Workers are under pressure to embrace an array of faster, cheaper alternatives to traditional education and training programs. A tightening labor market is driving increased churn. Employers, facing pressures of their own to transform the way they identify and develop talent, are turning toward apprenticeships as a mechanism to attract, develop and retain skilled workers.

With origins in the European craft guilds of the Middle Ages, the apprenticeship model is gaining currency in the United States among both high and low-tech employers looking for better ways to identify, attract, and develop talent. Adobe's [Digital Academy](#), for instance, offers scholarships for low-income job applicants to participate in accelerated tech training programs before moving onto three-month paid apprenticeships in technology jobs. [Techtonic Group](#) is a Boulder-based software development shop that is simultaneously a registered apprenticeship program.

And at a time of political discord, apprenticeships stand out as a model that is attracting bipartisan political support. The Obama Administration made apprenticeships a priority, [awarding](#) \$175 million in grants in 2015 and investing \$90 million in apprenticeship programs the following year. In June 2017, President Trump signed an executive order to increase federal funding from \$90 million to \$200 million

per year, and give third parties more control in developing and setting standards for apprenticeships. Labor Secretary Alexander Acosta recently assembled a task force charged with transforming the U.S from an apprenticeship laggard to a model for how apprenticeships can play a role in realizing both enterprise -- and individual -- aspirations within a tech-driven economy.

The U.S. Department of Labor currently has up to \$90 million of uncommitted federal funds for scaling apprenticeships, and the President's 2017 executive order calls for an increase to \$200 million. This paper offers five recommendations for how these funds can help seed a national apprenticeship initiative with the potential to realize the Administration's vision of creating an additional 5 million apprentices by 2022:

- Shift the mindset to digital apprenticeships by bringing emerging and fast-growing industries to the table
- Formalize and incentivize the role of apprenticeship service providers
- Clarify federal funding for apprenticeship programs
- Build apprenticeships at the industry level, rather than one employer at a time
- Encourage the public sector to lead by example by implementing government apprenticeship programs

Introduction

The More Things Change...

Today's dynamic labor market is fueling an unprecedented sense of urgency among policymakers and executives alike. The shrinking shelf life of skills has been well documented. According to [LinkedIn](#), many of the skills needed for the country's fastest-growing jobs (like machine learning engineer or data scientist) didn't exist five years ago. Automation is transforming not just businesses and industries, but entire labor markets. Employers struggle to identify and hire, or develop talent with the skills they need to compete. And as the labor market tightens, retention rates plummet and demand for skilled workers fuels costly churn.

To remain competitive, workers are under pressure to embrace an array of faster, cheaper alternatives to traditional education and training programs. Employers are, likewise, under increased pressure to transform the way they identify and develop talent. Digital credentials are giving rise to metadata that enable HR leaders to look beyond historic proxies to identify hidden talent in unconventional places. A maze of employment

technologies tap the potential of AI and machine learning to sort and filter candidates based on likely job outcomes.

But not all of today's workforce innovations are rooted in the transformative potential of technology. As it turns out, the apprenticeship model -- with origins in the European craft guilds of the Middle Ages -- is gaining currency in the United States among both high and low-tech employers looking for better ways to identify, attract and develop talent.

Adobe's Digital Academy offers scholarships for low-income job applicants to participate in accelerated tech training programs before moving onto three-month paid apprenticeships in technology jobs. Techtonic Group is a Boulder-based software development shop that is simultaneously a registered apprenticeship program. Techtonic hires and trains apprentices and, by week 5 or 6, apprentices shadow more experienced software developers. After a few months, apprentices are billing meaningful hours on meaningful client projects. A year later, Techtonic clients are invited to hire the software apprentices they've been working with and whose work they've seen, which radically reduces the risk of entry-level hiring. As many of the challenges faced by Millennials stem from their inability to land good entry-level jobs with employers like Techtonic's clients, this model provides an appealing and scalable faster + cheaper pathway.

Apprenticeships are also drawing political support from both sides of the aisle. [Characterized](#) as a "bright spot for bipartisanship," apprenticeships are a part of a shifting policy landscape centered on bridging the gap between

education and employment. Commenting on President Trump's June 2017 apprenticeship executive order, New America's Mary Alice McCarthy made the case that "to make the most of apprenticeship, policymakers must make it part of—not an 'alternative' to—higher education."

Later that year, Labor Secretary Alexander Acosta assembled a task force charged with transforming the U.S. from an apprenticeship laggard to a model for how apprenticeships can play a role in realizing both enterprise -- and individual -- aspirations within a tech-driven economy.

That vision will not come easily. The U.S. would have to churn out over 7 million new apprentices each year to compete with world leaders like Switzerland. Given that the U.S. only has 400,000 non-military apprenticeships, it presents the task force with a daunting challenge.

At the time of writing, the U.S. Department of Labor currently has \$90 million of uncommitted federal funds for scaling apprenticeship; the President's 2017 executive order calls for an increase to \$200 million.

In this paper, we propose how these funds can help seed a national apprenticeship initiative with the potential to realize the Administration's vision of creating an additional 5 million apprentices by 2022.

DEFINITIONAL ISSUES

Research shows that apprenticeships provide students with a remarkable return on investment: students who complete apprenticeships [earn](#) nearly \$250,000 more over the course of their careers than comparable students who don't.

Apprenticeships are increasingly attractive to students focused on getting their foot on a career ladder – and attaining some initial economic security – while minimizing student debt. Rather than paying upfront for an uncertain outcome as is our custom in higher education, you learn while already in a job.

But according to Eric Seleznow, Senior Advisor at Jobs for the Future, “There’s a great deal of imprecise language about what apprenticeships actually are. Defining what we mean by ‘apprenticeship’ matters.” Seleznow, who led the implementation of apprenticeship programs at the Department of Labor during the Obama Administration, notes that “there are significant differences in the quality, rigor and outcomes for Registered Apprenticeships, non registered apprenticeships, and internships. Policymakers’ and employers’ growing enthusiasm for apprenticeships makes precision of language about what they are, what they mean, and their expected outcomes, that much more important.”

While many more people may believe they have had “apprenticeships” (including contestants on the President’s former TV reality show), the term is officially defined as an employer-sponsored training program registered with the U.S. Department of Labor.

Apprentices are employees – hired by the employer. The [difference](#) between apprentices and other new employees is that apprentices receive on-the-job training from an experienced mentor plus a prescribed program of Related Technical Instruction (RTI) to move the apprentice to full occupational proficiency over a period of one to six years. In return, employers may start apprentices at a lower wage (\$15 per hour, on average).

While apprenticeships are more common in America than most people think – over 150,000 companies have programs – one reason workers are not considering them is an outdated view about what, and crucially, who apprenticeships are for.

1. SHIFT THE MINDSET TO FOCUS ON “DIGITAL APPRENTICESHIPS

“Are apprenticeships inherently suited for certain types of skilled trades and not others? Or is that just a historical artifact?” asks Ethan Pollack of the Aspen Institute’s Future of Work initiative. “We often focus on the need to enroll more people in existing apprenticeship programs, which leaves out other industries where apprenticeships could provide the clearest pathway to employment.”

This mindset needs to change: we are on the verge of a revolution in education and training fueled by the emergence of faster + cheaper pathways to good (digital) jobs. Apprenticeships should be at the forefront of this shift.

It’s disappointing that the Presidential task force consists largely of representatives from traditional building and industrial trades (including unions). To realize the transformative potential for the apprenticeship model for today’s economy, representatives from emergent industries should be included at the table. While policymakers love to talk about training welders, few parents who attended college and work in white collar jobs are excited about sending their own offspring down an apprenticeship path that’s historically been blue collar, involving manual labor and union membership.

Since the end of World War II the American dream has been driven in large part by obtaining a bachelor’s degree. It doesn’t particularly matter whether a degree from four-year-college is something the economy actually requires, because the modern American mindset has been relentlessly shaped by a cultural and pervasive bias: a degree equals “success;” vocational training is a good idea, but it is seen by your average middle-class family as for other parents’ kids. This is reinforced by the fact that

most federally funded workforce development programs are for historically disadvantaged groups.

A further bias against alternative paths is driven by the fact that 80 percent of American apprenticeships [are](#) in the traditional building and industrial trades, with a significant percentage sponsored by unions rather than employers. The most common apprenticeships in the U.S. are electricians, plumbers, carpenters, and iron and steel workers.

America still needs many of these well-paid, secure, manual and unionized jobs. But they’re not growing nearly as quickly as digital jobs. What America needs, more than anything, is a national campaign to educate the public about the potential of 21st century digital apprenticeships in occupational fields as diverse as nanotechnology and the creative arts.

This is where we could learn from the UK, which has the broadest apprenticeship system in the world. Slightly more women train as apprentices than men. Over 300 occupational fields are offered in apprentice roles from entry-level positions right through to management; and in some cases, in industries that have been around for less than a decade.

Take digital skills: one of the most popular of the UK’s apprenticeships is in creative and media marketing. The government has funded a thirty second, \$30 million primetime ad campaign on national television called ‘Get in. Go far.’ The campaign deliberately challenges perceptions of who apprenticeships are for. The apprentices profiled in the ad are predominantly in highly skilled and white-collar roles; one young woman apprenticed to Accenture – a major consulting firm – says “I can even get a degree.”

2. FORMALIZE AND INCENTIVIZE THE ROLE OF APPRENTICESHIP PROVIDERS

While the countries most identified with successful apprenticeship programs are in Europe (Germany, Switzerland), it's unlikely America will be able to copy these models wholesale.

The German apprenticeship model – generally viewed as a major contributor to Germany's low levels of youth unemployment, as well as manufacturing strength – is a unique product of an ecosystem of government support and engagement by employers, chambers of commerce (which are mandatory and which charge high membership fees), trade unions, and vocational tracking starting in high school that seems impossible to replicate here.

Nearly half of all German and Swiss high school students [graduate](#) into apprenticeship programs instead of pursuing a university degree. The United States, of course, does not have the infrastructure in place to support this model – as Michael Strain, director of economic policy studies at the American Enterprise Institute, put it, “the hard work comes in trying to create partnerships between the education side and the employer side.”

The UK has a model of apprenticeship closer to American employer expectations because it is largely run by the private sector. We don't mean employers, but rather apprenticeship service providers. Apprenticeship service providers (ASPs) are intermediaries – over 1,500 of them

in the UK, 70% of which are private sector companies – that establish, manage, and deliver apprenticeship programs on behalf of employers, standing between the employer, the apprentice and the government and “hiding the wiring” for all.

Specifically, ASPs are responsible for recruiting candidates, screening them and matching them to employers. They then ensure that new apprentices are being appropriately supported and mentored in their new roles. Critically, they deliver (or arrange for the delivery of) Related Technical Instruction (RTI). RTI is the formal educational component of the apprenticeship that, in conjunction with work experience, is expected to move the apprentice to full occupational proficiency over a period of one to six years. Finally – and essential to employers – ASPs manage contact with government. This is for purposes of operating an approved (or registered, or certified) apprenticeship, for dealing with paperwork, as well as for funding the cost of the training (see the next section).

The U.S. remains well behind the UK in terms of digital apprenticeships in large part due to a lack of independent (i.e., non-union, non-government) ASPs with an incentive to scale. Nonetheless, ASPs are coming to the U.S. Franklin Apprenticeships aims to help hundreds of employers launch digital apprenticeships. Founded by a couple of experienced apprenticeship executives from the UK (including Tom Bewick, one of the authors), Franklin has contracts with several large U.S. employers,

as well as with CompTIA, the IT industry association, and plans to launch programs beginning in 2018. Another ASP, Elite Apprentices, a subsidiary of leading UK ASP Middleton Murray, has just launched in San Francisco, targeting technology companies. Both Franklin and Elite hope to convince US employers that, with their support, apprenticeships are worth a try.

One way the government can encourage the growth of ASPs is to provide a performance based “engagement fee” bonus to intermediaries that sign up apprentices for recognized programs. In the UK, these fees are typically \$600 per apprentice, or enough to incentivize ASPs.

In the UK, ASPs Hawk Training and Arch Apprenticeships have set up telemarketing centers that call employers, asking if they’d welcome a visit from an apprenticeship business adviser. These apprenticeship service advisers undertake the field work and sign up employers for apprenticeship programs. They do all the paperwork and initiate the recruitment process of the candidate (in some cases charging the employer placement fees to find the right match). Only when the employer has signed up and actually started the apprentice(s) on program (and the apprentice has been employed for a minimum of 13 weeks) does the UK government release funds to the ASP that enables them in turn to deduct the equivalent of the employer engagement fees. Sign up no employers, then the ASP will receive no fees.

The efficiency of this model, from a government taxpayer perspective, is that public tax dollars are spent and only released when the employer has actually committed to taking on an apprentice. This is a world away from throwing tax dollars at an intermediary infrastructure that may not be either innovative or hungry enough to get out there and sign up real employers (see, for example, the entire U.S. system of postsecondary education). Moreover, in terms of quality assurance, effective licensing and auditing can ensure ASPs are doing the right thing, the right way. This is how it works in the UK. By licensing ASPs, the government can get out of the way of regulating employers (or “registering” apprenticeships), since it places the onus on ASPs. Few ASPs will want to go out of businesses because they were found to cut corners in the provision of apprenticeship services to employers.

At this early stage of the faster + cheaper revolution, apprenticeships are a product that is sold, not bought. As we have seen in the UK, ASPs are necessary to sell them, and they have a large incentive to scale – much more than, say, unions who may be trying to control supply of trained workers in order to keep wages high. Moreover, there are a host of private equity firms (including University Ventures, of which Ryan Craig, one of the authors, is Managing Director) funding the growth of these essential intermediaries. As government funding of apprenticeship training is clarified, expect to see the private sector match government investment in order to fund the hiring of (initially) unproductive apprentices. This is exactly the path we’ve seen in the UK.

3.

CLARIFY FUNDING FOR APPRENTICESHIP TRAINING

In the UK and other countries, the training component of apprenticeships is publicly funded. While each country has its own set of regulations, the common thread is that employers are only on the hook for the cost of the apprentice wages – not the costs of the off-the-job training or related technical instruction.

“Apprenticeship programs in the US are funded through a patchwork of public and private dollars, leading to more fragmentation and confusion for potential apprentices,” said Jeffrey Selingo, author of *There is Life After College*. “Federal policymakers should be looking to states like Colorado, or countries like the UK, for examples of the type of public-private partnership that can support robust apprenticeship programs.”

In the UK, apprenticeship funding by government is divided into 15 so-called “funding bands.” The amounts of government subsidy available for the training ranges from between \$2,000 to \$36,000 per apprentice. The amount awarded depends on the type of apprenticeship, the skills attainment level, and program duration. A one year apprenticeship at entry-level in business administration, for example, will attract much less subsidy than a 3-year cybersecurity apprenticeship that leads to the award of a bachelor’s degree. This approach to funding provides all the stakeholders with upfront clarity about what is available. It is also, from a fiscal perspective, helping to reward employers that seek to push their employees higher up the skills value chain by supporting the new economy,

digital, and better paid jobs. A qualified cybersecurity analyst in the UK makes well over \$100,000.

In the U.S., there’s no comparable clarity in the funding of apprenticeship training. Even securing DOL recognition as a registered apprenticeship may have no bearing on a local workforce board’s willingness to provide funding for training. WIOA funding decisions are made by state and local WIBs. Congress has the means to both clarify and simplify this. This should include a major simplification of WIOA funding and the hodgepodge of other workforce grants and schemes available; securing registration should mean that the cost of apprenticeship training is covered.

Achieving this would require leveraging state apprenticeship funds. Congress could allow existing WIOA and other workforce funds to be used on a match fund basis, helping governors power up apprenticeships and win support for state-based apprenticeship programs. America needs a vision comparable to President Dwight Eisenhower’s Interstate Highway System in the 1950s, which bound federal and state governments together in building a new strategic infrastructure which has powered U.S. commerce and culture ever since. Today’s equivalent would be the building of a “Skills Superhighway” in which the creation of a more effective (soft) infrastructure of the kind we discuss in this article would go some way to making such a vision become reality.

Even so, in order to meet the ambitions and potential of apprenticeships, existing WIOA and workforce funding is unlikely to be enough. America currently spends a fortune on college education. Student debt outstrips other forms of consumer debt, standing at more than \$1.3 trillion. Yet apprenticeships are currently locked out of the Title IV program. As Congress reauthorizes the Higher Education Act this year, it must create a genuine level playing field between degrees and apprenticeships.

“Members of the Education and Workforce Committee have expressed their belief that all education really is career education,” said a senior aide at the House Committee on Education and the Workforce. “The fact that there are 6 million unfilled jobs and more than a trillion dollars in student debt is proof that something isn’t adding up with federal postsecondary education policy. We saw that with the overwhelming popularity of the Strengthening Career and Technical Education in the 21st Century Act, which the House passed last year. That’s the mindset committee members brought to [the PROSPER Act]. When we looked at what was missing in previous HEA reauthorizations, that focus on earn-and-learn opportunities, on apprenticeships, and even a more innovative approach to federal work-study just wasn’t there, so that’s why the Committee decided to bring higher education into this century.”

Take Pell Grants for example. These grants help grads from lower income backgrounds afford college tuition. Currently they are not accessible by apprentices in work-

based training where the related technical or off-the-job training needs to be delivered by a local college or other type of training provider. The result is discrimination against apprenticeship training, in favor of classroom-based learning.

And higher education funding can be more than just a source of revenue. As Brent Parton of New America wrote in a recent paper, “Funding [youth apprenticeship programs] through state higher education funds is not only an incentive for employers, it also gives policymakers leverage to ensure youth apprentices earn college credit and creates opportunities for more robust data collection on apprentice outcomes.”

Rebalancing postsecondary spending needn’t be fiscally profligate. In the UK, apprenticeship funding has increased exponentially over the last decade as employers have taken up the program. Direct subsidy of apprentice training by government accounts for around \$2 billion of annual spend. Since a new payroll tax (the “apprenticeship levy”) was introduced in May 2017, by a Conservative Government, larger employers are now directly contributing around \$4 billion each year to funding their apprenticeship training. For a UK workforce of less than a quarter of the size of the U.S., this level of investment equates to approximately \$24 billion – not a high price to pay considering that what’s at stake is America’s economic security and productivity, particularly for struggling Millennials and Generation Z.

4. BUILD QUALITY PROGRAMS BY INDUSTRY

At the moment, America’s approach to building apprenticeship programs is like the approach a tailor uses to make a suit. Apprenticeship programs are devised as a custom fit to each individual employer.

While there is nothing wrong with ensuring that programs always meet employer skill requirements, experience elsewhere suggests that this highly individualized approach is both cumbersome and unrealistic -- particularly for small and mid-size employers. The danger of the custom-built apprenticeship program approach is that over time, it could lead to inconsistent and poor quality. If there is one surefire way to sink the reputation of any postsecondary skills initiative, it will be when the American public starts to equate apprenticeship programs with poor quality.

“The most successful education/industry partnerships I’ve seen are initiatives like Toyota’s Advanced Manufacturing Technician program,” said Jaime Fall, Director of Upskill America. What makes them work is that they bring together a large set of partner companies that value the skills individuals learn during their apprenticeship and work to create a talent pipeline for the industry in the region, not just one employer. This doesn’t work when individual companies just work to prepare enough talent to meet their own needs.”

To grow apprenticeships effectively, the U.S. needs to move from a philosophy of scaling up apprenticeships one employer at a time to expansion based on getting whole industries and supply chains to scale digital apprenticeships instead. This could be based on the adoption of some common standards and tried and tested programs cascaded from successful apprenticeship schemes elsewhere.

After all, degrees offered at a multitude of different and competing institutions have many common elements. A degree in economics, for example, requires an understanding of how money and inflation works. How the course is taught and what reading list is required may be different at Harvard compared to Fresno State. What matters is that students master the basic principles of price stability and the effect that wages and exchange rates can have on inflation. What universities do not do is reinvent the entire discipline of economics every time they teach an economics course. Yet, that is precisely how apprenticeships are being designed and delivered in America at the moment.

In Germany and the UK, apprenticeship programs are devised by industry groups working together. They have formed sectoral or industry partnerships that have mapped out the common knowledge, skills, and behaviors of what they expect the apprentices to achieve in the roles they are recruiting for. These industry requirements are then linked to a set of measurable, outcomes-driven, competency-

based standards. In the UK, these standards can be listed on two pages.

What we are talking about here does not necessarily have to be time-consuming or bureaucratic. With a flexible approach and the development of workforce and industry intermediary bodies, the task of scaling up could be relatively easy provided employers feel they can access a well tried and tested model and, crucially, be given scope within a common training framework to tailor the apprenticeship program to meet firm specific needs. As Jason Tyszko of the U.S. Chamber of Commerce Foundation put it, "If apprenticeships are ever going to scale in this country it will require significant employer leadership, buy-in, and investment. This requires us to look beyond traditional program recognition and accreditation processes and instead look to industry best practices for managing quality. Now is the time to apply trusted and established supplier certification systems in new and innovative ways to education and workforce partnerships, including earn and learn pathways such as apprenticeship."

Franklin Apprenticeships is already working with employers helping them adopt such an approach. Maximus has committed to rolling out thousands of new apprenticeships from 2018 in healthcare and human services occupations. Instead of starting from scratch, Maximus is adapting highly successful programs from the UK into the company's own U.S. approach to recruiting apprenticeships. Not only has this model saved the company time and money, but it

is also enabling senior executives to fast-track adoption of apprentices within what is one of America's largest employers. A major part of the Maximus apprenticeship initiative is to cascade apprenticeship adoption through its procurement and supply chains. By adopting a common framework, Maximus is able to scale up more quickly.

5. THE PUBLIC SECTOR SHOULD LEAD BY EXAMPLE

In 2001, the then Minister for Adult Skills in the UK was left a little embarrassed. His department had just issued a clarion call exhorting the private sector to take on more apprentices.

The ministry pointed out that the country was lagging behind international competitors and that apprenticeship was a well proven path to improve workplace skills and productivity. Sound familiar?

Things got a bit sticky when the media started asking pointed questions about how many apprentices were employed by various central government departments and agencies. The answer came back: hardly any. Therein began a slurry of negative press headlines about the government's own hypocrisy in chiding the private sector for inaction on the one hand, while doing very little as a major employer itself on the other. The media even had a go at the minister for not having an apprentice in his government private office.

It would turn out to be a Damascene moment in the history of public sector recruited apprenticeships in the UK. The Minister swiftly ordered a review across all government departments and agencies. The "civil service apprenticeship" was born soon after with targets set for human resource administrators to hire more apprentices. Where cross-government hiring freezes were in place, the

rules were relaxed if departments took on apprentices instead of permanent staff.

Several years later legislators got involved and decided to set a statutory target of 2.3 apprentices for every 100 public sector workers employed by government. From April 2017, it is a legal requirement that UK schools, hospitals, police forces, local municipalities and central government departments employ at least 2.3 apprentices per 100 workers or face stiff financial penalties. The 2.3% target is enforced by the fact these public bodies must complete an Apprenticeship Activity Return, similar to an annual corporate tax return, which shows how the additional apprentices have been incorporated into their workforce planning.

Now cross the pond to the U.S. Presidential Task Force on Apprenticeship Expansion. There is lots of exhortation about the need for "the private sector to invest more in apprenticeship;" Labor Secretary Alex Acosta has said this is one of his top priorities. But to our knowledge the U.S. Department of Labor does not employ a single serving apprentice.

The task force should set an aspirational goal of 1 million public sector apprenticeship starts per annum by 2022. Working with state governors and municipalities, it could offer to cover the cost of apprenticeship training, provided apprentices are working towards a nationally recognized industry or public service credential. Such an approach

would not only have the effect of public policymakers leading by example, but also the obvious spill-over effect of greater leverage of the private sector. For example, in the procurement of public contracts, the public sector could put in place minimum thresholds for contractors in hiring apprentices to their work forces. Imagine a world in which private contractors compete with one another to win public tenders, in part at least, on the basis of hiring apprentices.

Conclusion

We accept that the Presidential Task Force is unlikely to comprehensively figure out overnight how to earmark \$24 billion for U.S. apprenticeship expansion, matching the current level of funding in the UK. But it can recommend ways in which both the market and employers could be better incentivized. While several states are busy passing legislation in terms of tax credits and other financial incentives, what is needed is a rocket-booster of an initiative from the federal government.

While the Department of Labor has an aversion to ‘marketing’ apprenticeships, this needs to change. At election time, millions are spent by campaign groups on getting the message out about the merits of a particular candidate or a specific policy. Businesses also spend a huge amount of money marketing products to their consumers. Apprenticeships need the equivalent of both an “air war” and a “ground war” marketing campaign. The air war would include broadcast and digital media advertising to challenge some of the outdated perceptions of what and who apprenticeships are for.

One of the biggest challenges at the moment is that virtually no resource is dedicated to promoting apprenticeships as a pathway to new economy careers. The brand of four-year college is already well established in the minds and hearts of America’s middle class. The challenge, therefore, is to enable an equally high-quality pathway choice of postsecondary transition to the labor force – through modern apprenticeship. The ground war would be follow-

up by apprenticeship service providers, reaching out to employers with a product-specific offer off the back of the increased exposure from the air war.

For new models like apprenticeships to succeed, employers may need to “go beyond what they currently perceive as being a ‘qualified’ or traditionally qualified candidate for that role,” said Nicole Isaac, Director of US Policy for LinkedIn and former special assistant to President Obama, in a recent interview. “It’s going to require almost an industry-wide shift where you’re seeing more and more employers committed to providing access to individuals who may not fit that traditional background.”

There is no magic bullet, but these recommendations -- a major national marketing campaign; formalizing and incentivizing the role of apprenticeship service providers; clarifying public support for apprenticeship training (probably requiring some rebalancing of postsecondary education funding); developing an industry-wide approach to developing apprenticeships; and federal and state governments leading by example and hiring more public service apprentices -- have the potential to put the U.S. on the road to a medal position in the global skills Olympics. It would give young people a new sense of hope that training for rewarding careers can occur without incurring tens of thousands of dollars in student loan debt. And it would provide American companies with the 21st century skills they so desperately need.