We don’t have a JOBS problem, we have a CAREERS problem

Kenneth Aitchison & Christopher Dore

Landward Research / FAME & Heritage Business International

CIfA2022: Annual Conference
Bath April 29, 2022

STREAM TWO: CHALLENGING WHY AND HOW WE DO ARCHAEOLOGY, AND WHERE WE MIGHT ADD MORE VALUE

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Stream two: challenging why and how we do archaeology, and where we might add more value

Introduction - Big Picture Problem

Since 2020, archaeology in the UK and in the USA has been experiencing a recruitment ‘squeeze’ with unprecedented levels of hard-to-fill vacancies. This comes at a time when there is a mis-match between worker values and financial value in the industry.

The problem is that it is difficult for companies to hire both new entrants and experienced professionals at a time when demand for those companies’ services has been rising.

Constitution Street, South Leith Parish Church © GUARD Archaeology Ltd

Demand

Demand for (compliance or development-led) archaeological work is driven by the cyclical nature of the construction industry. Short-term construction activity (including housing) declines and almost always bottoms out when the economy is in recession. Large, long-term projects can also see delays, reductions in scale and scope, and may sometimes see cancellations (and sometimes these are clearly for political rather than economic reasons). However, downcycles for the construction industry are usually short, and the expansions are lengthy.

In the UK and USA, the governments' protection of construction as an 'essential' industry during the pandemic, coinciding with a high level of activity on infrastructure projects, pushed demand for archaeological services.

In the US, the passage of the 2021 Infrastructure Investment and Jobs Acts means that construction – and archaeology – may be entering an infrastructure 'supercycle'

Supply

Archaeology is part of the knowledge economy, and companies seek entrants that are able to adapt to and work in knowledge-focussed workplaces – meaning graduates have historically been sought, and expected to fill, these positions.

In both the UK and the USA, the numbers of individuals graduating with degrees in archaeology (or anthropology) is far in excess of the natural replacement rate (the numbers of retirees or other people leaving the industry).

But despite this, companies are finding it very difficult to recruit new entrants.

Salaries and job security are key considerations in any decision to seek or accept employment, and historically, archaeology has not always offered satisfaction in these areas.

Coinciding with the onset of Covid-19, around the developed world, there is a widely recognised global north white collar knowledge economy labour shortage – sometimes called the 'great resignation'

"… with apparently high levels of job dissatisfaction [in many sectors], and unhappiness with company cultures, leading to employees feeling they have had enough and moving on" – or choosing not to enter

This has been a time of re-evaluation, and attitudes to work have changed, and some consider that the last two years had seen a reckoning in archaeologists career expectations. Covid-19 has certainly been a factor in this, but is also due to the growth of the 'new' generation of workers in not only our, but all industries and their values about work (which can be difficult for managers of previous generations to fully appreciate), with a push to recognising what is required to be equitable ethical employers in order to satisfy employees' needs.

Problem

So overall, we consider that archaeology doesn't have a jobs problem, we have a careers problem, and a way to address that might be to embed more economic value in the work that archaeologists do, so enabling sustainable, profitable companies to better support individual archaeologists on career trajectories, rather than opportunistically engaging them *ad hoc*.

Numbers of Archaeologists in UK archaeology 2020

6300

FTE

Archaeologists

Working in the UK

LANDWARD
RESEARCH

UK Archaeologists

4375 Contractors & Consultants

850 in Academia

375 Advising Local Planning Authorities

275 at National Government Heritage Agencies

250 Public Archaeologists

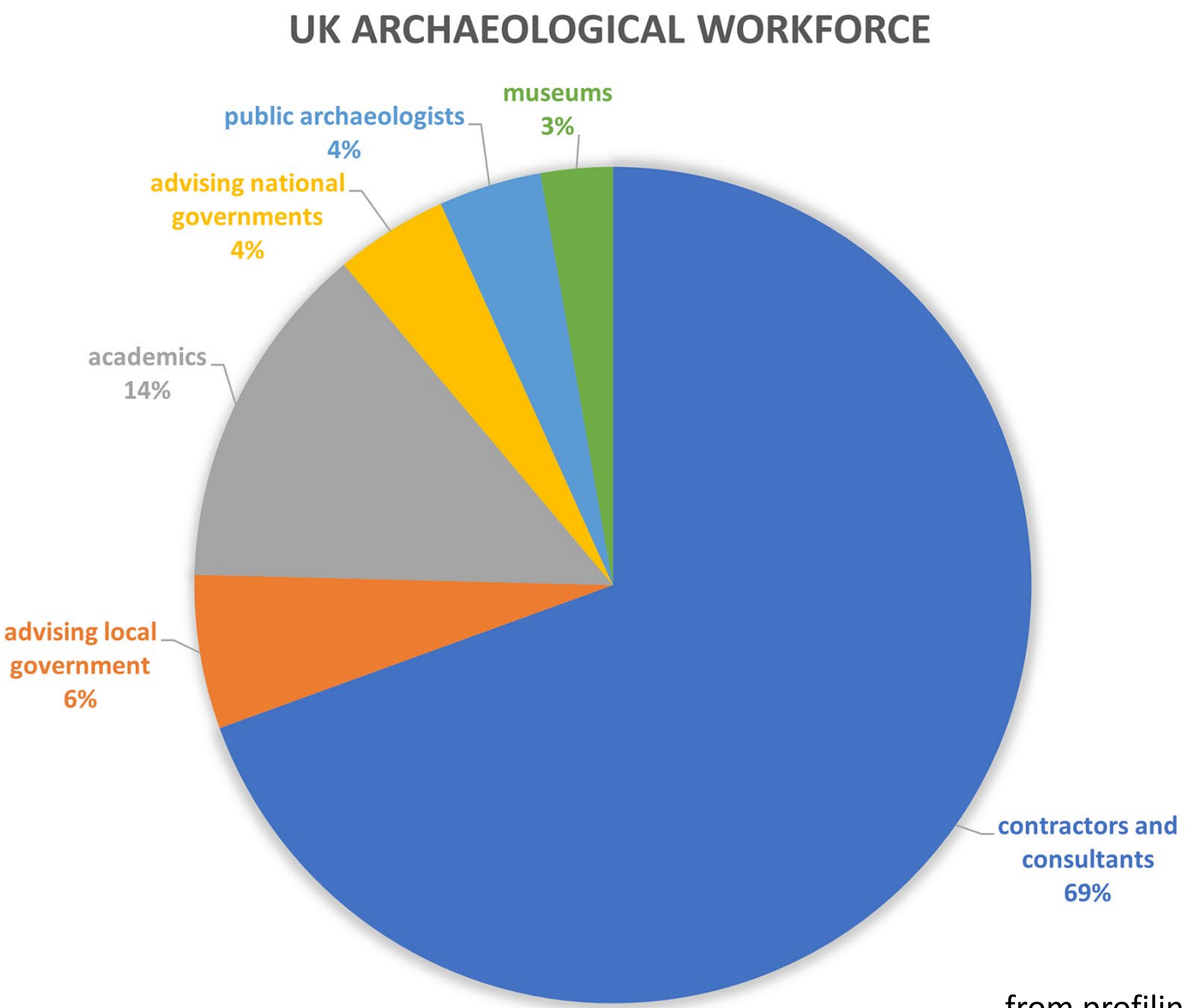
175 in Museums

LANDWARD
RESEARCH

from profilingtheprofession.org.uk

Archaeology in the UK

Looking at the data from Profiling the Profession 2020 (data captured just on the eve of Covid-19 beginning to have an impact), more than 2/3 of archaeologists worked in commercial archaeology, and together with colleagues advising local government, 75% worked in development-led or 'compliance' archaeology.



from profilingtheprofession.org.uk

Revenue as a proxy for demand

The four biggest companies in UK archaeology (MOLA, Wessex Archaeology, Oxford Archaeology and Cotswold Archaeology) are all charities, and their annual reports and accounts are publicly accessible on the Charity Commission website

In 2019-20, those four companies turned over £60m, which represented 51% of the total value of UK commercial archaeology. But added together, their expenditure was £0.58m more than their revenues that year – an aggregate loss of 1.0%

In 2020-21, their total revenue increased by a massive £21.6m – 36%, and this can be taken as a proxy measurement for the increase in demand that year.

Demand and Surplus

MOLA + Oxford + Wessex + Cotswold			
2019-20			
staff	revenue	surplus	
1146	£60.0m	-£0.6m	-1%

= 51% of total industry turnover (was £117m)

2020-21			
staff	revenue	surplus	
1250	£81.6m	£3.8m	5%

36% increase

data from individual returns to the Charity Commission

Profitability

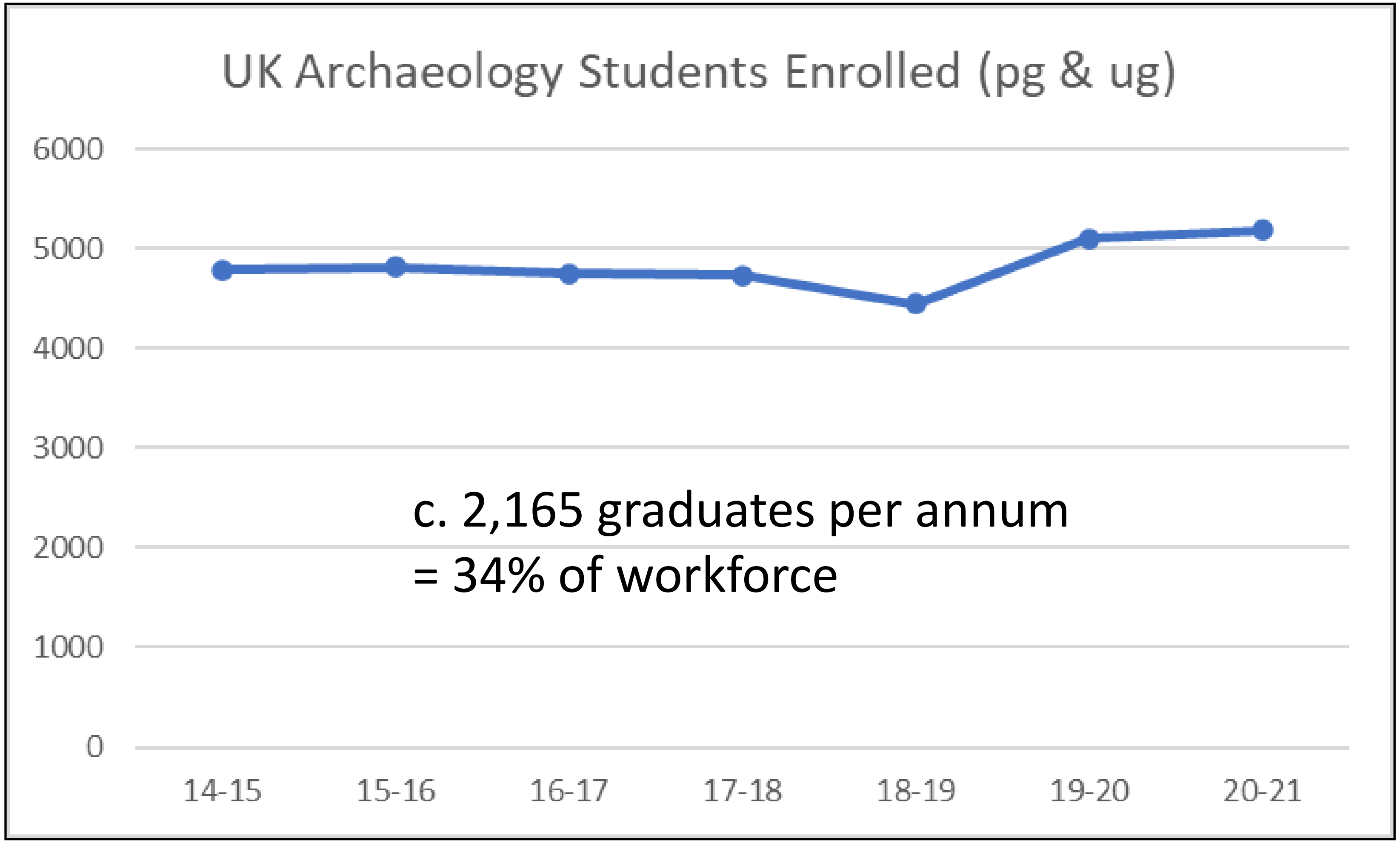
But – ‘profitability’ at the four organisations ranged from a loss of 5.0% to a surplus of 11.9% - combined 4.7% across the four.

These organisations are charities – and crucially, this means that they formally committed to delivering public benefit, and their Articles of Association will include phrases very like

the surplus generated is invested in educational and community engagement initiatives.

Privately owned companies are then competing in a market dominated by larger not-for-profits.

Supply



data from HESA

Student numbers

From 2014 to 2020, the numbers of students enrolled on archaeology degree courses (undergraduate + postgraduate) in the UK (humanities, sciences, forensic archaeology, maritime archaeology) stayed remarkably consistent, at around the 5,000 mark. It is calculated that this means there are approximately 2,165 archaeology graduates every year. This is 34% of the total workforce in the sector – and so, if all were to take up positions in professional archaeology, the entire working population would be replaced every three years.

Demand for Staff

Headland Archaeology advertise for 100 entry level positions in June 2020

The Role
We are looking to recruit up to 100 enthusiastic, committed, results-driven individuals, available to start immediately. Ideally you would have at least three months' experience in UK commercial archaeology, or relevant European commercial experience. However, we have limited positions on our formal trainee programme.

CIfA Jobs Information Service & Training Bulletin, June 22, 2020

Difficulty Hiring

In the first week of April 2020, there were (for the first time ever) no jobs advertised on BAJR

By 15th June 2020, lots of jobs being advertised at MOLA, Oxford, L-P

22nd June, Headland Archaeology advertise for 100 entry level positions

Recruitment Challenges

by March 2022, at least eleven firms employing more than 100 archaeologists each

unprecedented levels of hard-to-fill vacancies

‘great resignation’ and a reset in attitudes

no supply of European Union citizens

graduate and non-graduate training programmes

Recruitment Challenges

At the end of March 2021, there were at least eleven firms employing more than 100 archaeologists each

There is no longer a supply of European Union citizens

The biggest employers have developed graduate and non-graduate training programmes

Offering permanent contracts to all new hires has become the norm

In 2021, 74% of respondents to State of the Archaeological Market 2021 either agreed or strongly agreed that they had hard to fill vacancies

When organic growth becomes difficult, consolidation (mergers and acquisitions) becomes a much more appealing route to expand workforces (and so opportunities to deliver projects).

USA Commercial Archaeology

Market: £750 million

Firms: 1,350 in 2,000 offices

Scientific staff: 9,100

31% of USA archaeologists work in commercial archaeology

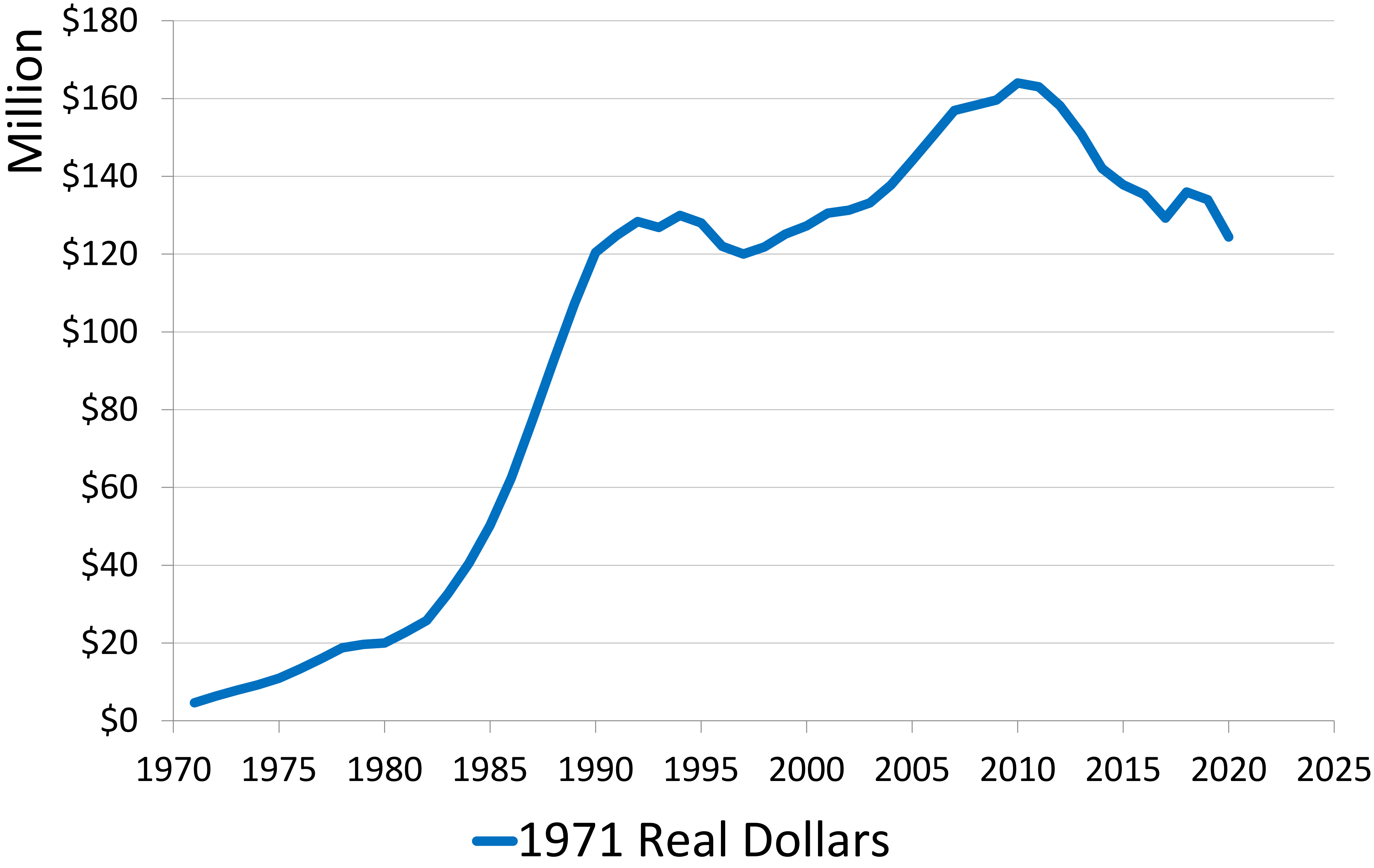
data from HBI

Commercial Archaeology in the USA

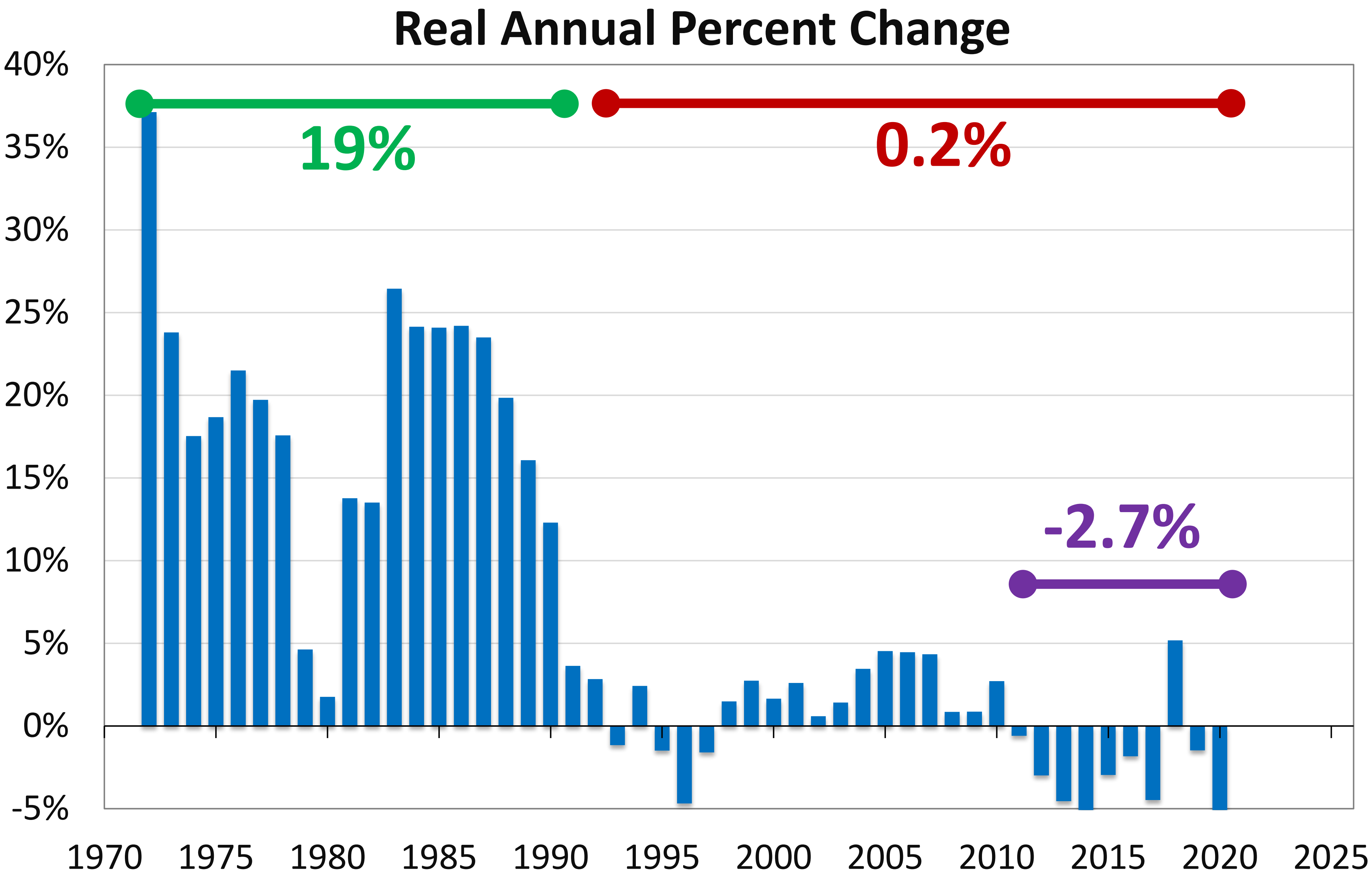
What do we know about commercial archaeology in the USA? Not nearly as much as the UK.

We believe, though, that commercial archaeology has a market size of about £750 million, and has about 1,350 companies in 2,000 office locations. Virtually none of these are charities. Commercial archaeology is thought to employ about 9,100 scientific professionals, in addition to professional support staff. The USA Department of Labor does provide a fairly reliable measure of distribution of archaeologists/anthropologists with 31 percent employed commercially, 44 percent employed in academia, and 14 percent in government. Remember, that in the USA archaeologists are anthropologists, so that adds to the difficulty of teasing out only archaeologists.

USA Commercial Archaeology Market Size



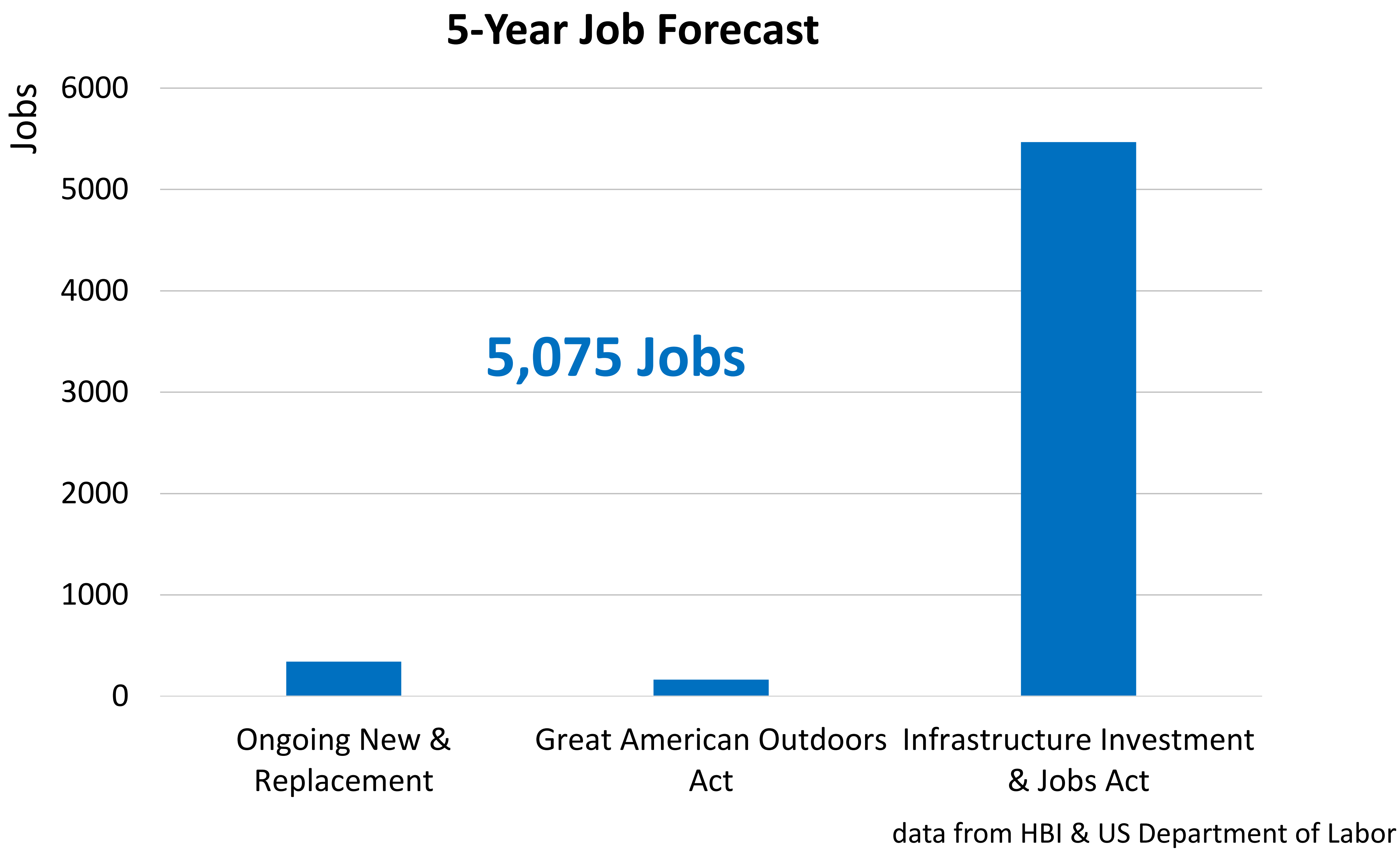
data from HBI



data from HBI

Demand

Recent passing of two large national laws, the Great American Outdoors Act in 2020 and the Infrastructure Investment and Jobs Act of 2021, has created an anticipated, if not yet realized, demand for commercial archaeology employees. Generally, though, employment demand is up due to overall economic growth and a Covid-era decrease in employees: the already mentioned “great resignation”. The commercial archaeology industry, much like every other industry, is facing a large labor shortage that is anticipated to get much worse.


5-Year Job Forecast
Jobs
6000
5000
4000
3000
2000
1000
0
5,075 Jobs
Ongoing New & Replacement
Great American Outdoors Act
Infrastructure Investment & Jobs Act
data from HBI & US Department of Labor

How Many Archaeologists Are Needed?

While not yet reflecting these two new laws, the USA Department of Labor forecasts job growth for commercial anthropologists/archaeologists to be 5-10 percent through 2030. These are replacement and new-growth positions and approximately number 683, or 68 per year. Forecasts for the Infrastructure Investment and Jobs Act predict 4,568 new commercial archaeology positions over the next five years. The Great American Outdoors Act adds 165 over five years. Thus, both laws will likely create about 950 positions a year over the next five years. It is unclear what happens to these positions after this big infrastructure spend is over.

“Techs”

the view from the bottom

Itinerant
Project Hire
Low Pay
No Benefits
BA & Field School Educated
Hard Work
3-5 Years
Many lost to archaeology

Project Labour and the Counting Problem

Understanding the supply of archaeologists is made difficult by the fact that approximately 42 percent of the commercial archaeology work force, based on data from the American Cultural Resources Association, is made up of temporary project-specific employees. Formally called archaeological field technicians, but known as "techs", we believe that at any one time there are about 3,700 active techs. These are itinerant labourers that move from company to company and project to project. The typical training requirement is a bachelor's degree and a field school. These techs have been largely invisible in tabulations of industry employees. When asked in surveys or conversations with company management how many employees they have, the answer is typically the number of permanent staff and doesn't include temporary project staff. This has skewed industry analyses and, culturally, devalued the contributions of techs in our profession.

“Techs”

the company view

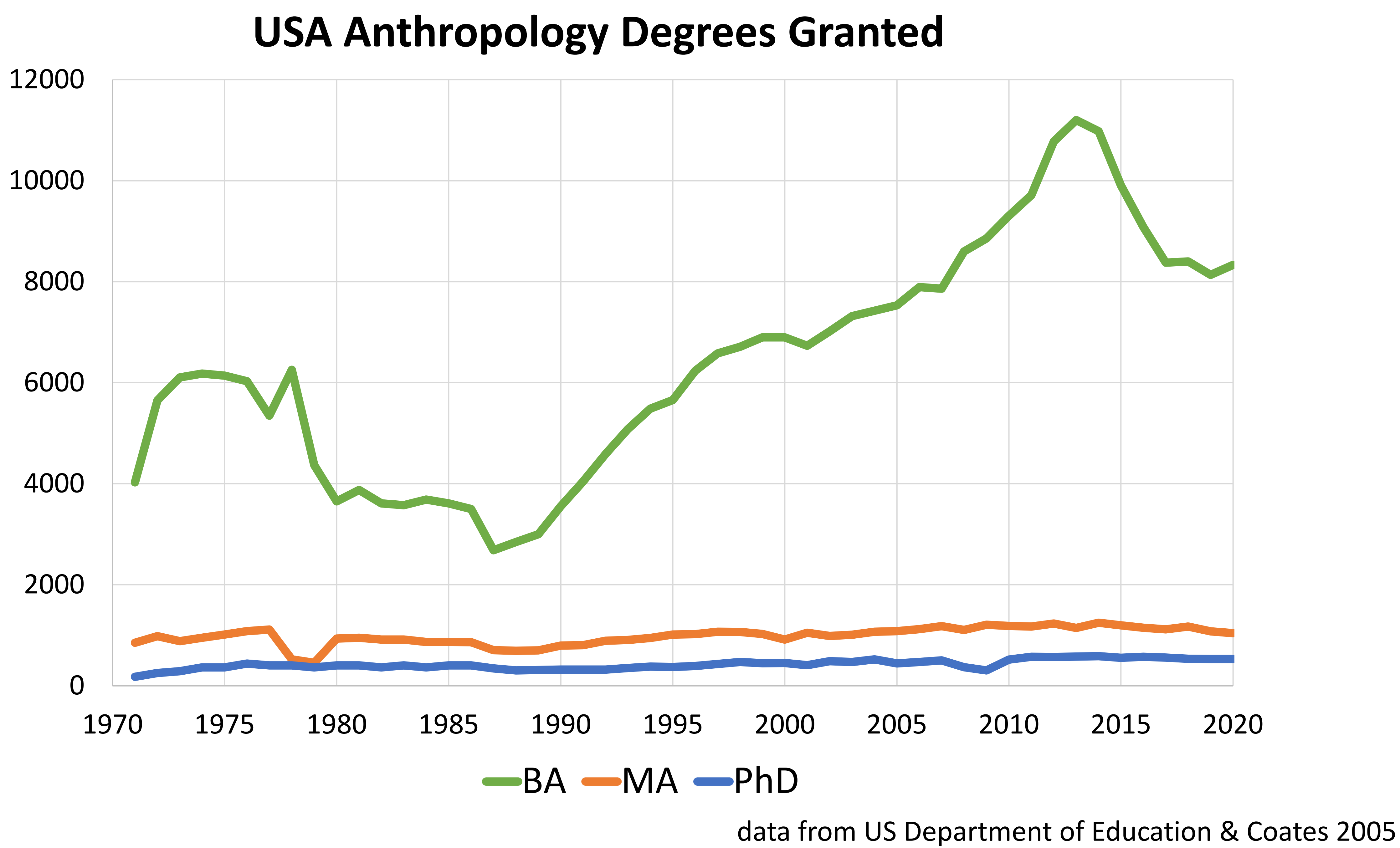
Low Cost
High Profit
Offset Senior Staff
Always a New Supply
No Investment Needed

The common belief, for which there is little data and which we believe is wrong, is that these techs work for a few years and then go back to school for a master's degree, the requirement in the USA to be a professional archaeologist. The typical work span of a tech after their bachelor's degree is generally thought to be about 3-5 years…and that may be generous. The lifestyle of a tech is difficult. There typically is no home base. Techs are on the road going from project to project, often in remote areas of the country. Living out of hotel rooms, tents, or their cars, the work is physical and demanding. In the USA, employment benefits, including health care, are tied to permanent employment at a particular firm and, thus, techs rarely receive benefits. Wages are low, too, just slightly higher than for jobs without a college requirement and its expensive tuition.

The under appreciation of techs is surprising, since most commercial firms require tech labour to be profitable and grow value. Given constraints on what the market will tolerate for the price of a project manager or senior archaeologist, firms make little money on senior, full-time, permanent staff with benefits. To meet firm profit and value goals, a broad base of techs is required. Profit margins on techs are high, partially because they don't receive benefits, they don't have non-billable administrative duties, and they are essentially 100 percent billable: no work, no pay. Thus, firms and the industry are financially dependent on techs given the business model of selling labour hours to clients.

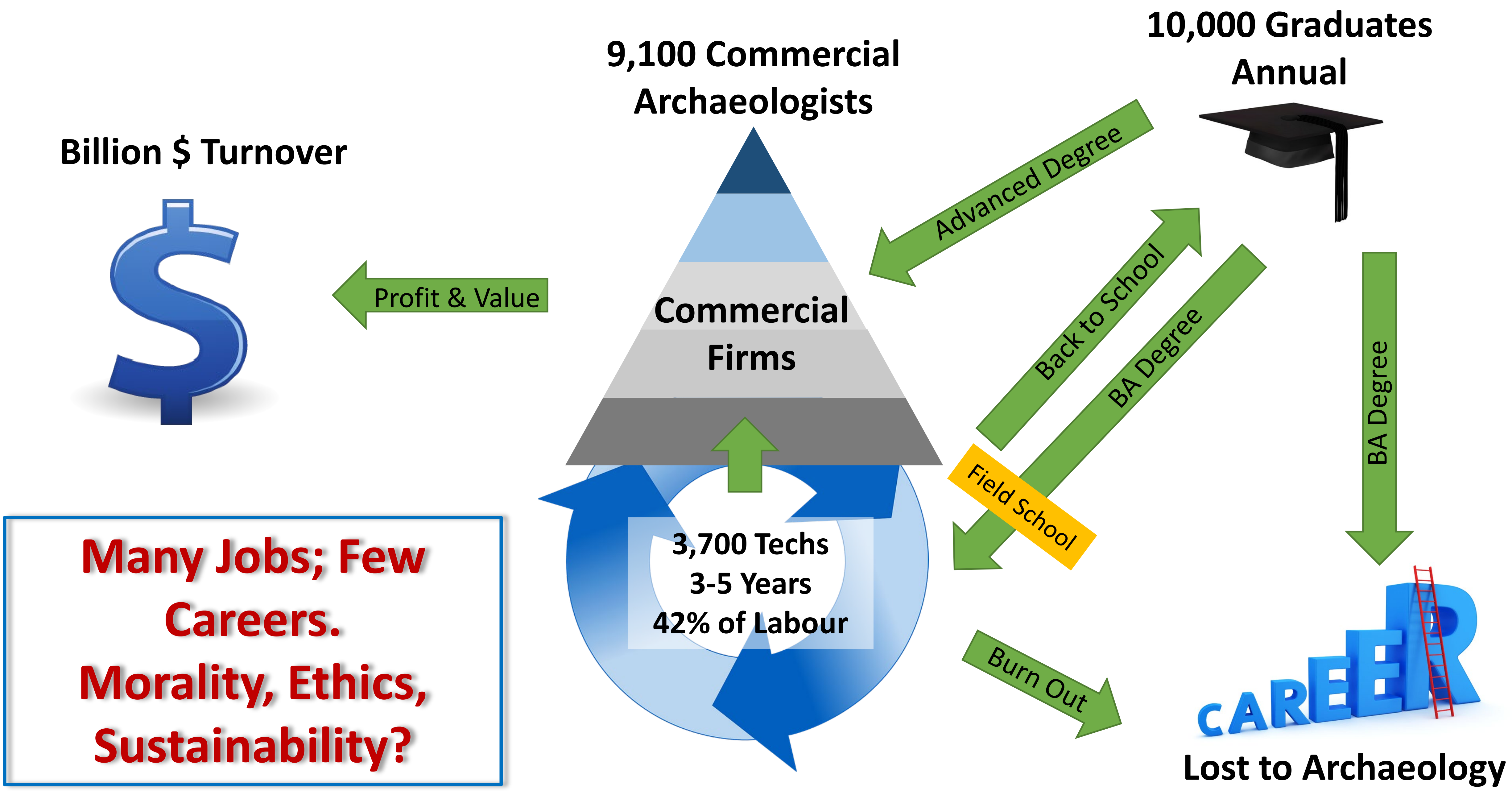
The Labour Need

So, for the next five years, the commercial archaeology industry in the USA needs approximately 5,075 employees, just over 1,000 per year. This has created panic in the industry that is already shorthanded. Fingers are pointed at the academy: "Professors need to tell their students that there are jobs for their graduates in commercial archaeology." This call to action is based on the false assumption that graduates in archaeology all go on to careers in commercial archaeology (and/or academic jobs for the Ph.D.s). It is also based on the false assumption that professors and students don't know about the jobs in commercial archaeology. This may have been true a decade ago. Now, though, most graduate students have worked for commercial companies. As well, most professors, except perhaps for the senior full professors, also worked for commercial firms in the past. Rather than not knowing about jobs in commercial archaeology, we argue that they know a lot about these jobs…and they've decided they don't want them.


USA Anthropology Degrees Granted
12000
10000
8000
6000
4000
2000
0
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
BA
MA
PhD
data from US Department of Education & Coates 2005

Labour Supply

How many archaeology graduates are there in the USA anyway? Is there a shortage of them to fill the labour needs of the commercial industry? While there has been a decline in anthropology degrees since a peak in 2014, and much has been made of this by others, this decline stabilized in 2017. In 2020 there were approximately 10,000 degrees granted. Most of these, just over 8,000, were bachelor's degrees, the degrees needed for techs. This is 10,000 degrees each year, against a short-term employment need of 1,000 per year and a long term need of 68 per year.



9,100 Commercial Archaeologists
10,000 Graduates Annual
Billion $ Turnover
Profit & Value
Commercial Firms
Advanced Degree
Back to School
BA Degree
BA Degree
Field School
3,700 Techs
3-5 Years
42% of Labour
Burn Out
CAREER
Lost to Archaeology
Many Jobs; Few Careers.
Morality, Ethics, Sustainability?

Yet, a labor shortage still exists in the commercial industry. We argue that industry firms need to take a look at themselves rather than point figures at the academy. A new business model is needed where firms can be profitable and grow value, while investing in the careers of archaeological techs instead of using them to generate profits and then letting them get burned out and go to other industries. If more employees are needed, our industry needs to present a value proposition to job candidates *competitive with other industries.* Many other industries value a bachelor's degree in anthropology far more than we do and provide careers that are stable, have good salaries and benefits, may provide less difficult work, offer career advancement, and allow for a home base. For graduates in anthropology it is simply about risk management and being able to return an investment on their college time and tuition: their choice is logical and pretty clear.

What are we losing as a discipline? We don’t believe that this labour model aligns with our disciplinary values. Most archaeologists would affirm that mentoring and growing young professionals into rewarding long-term careers is a professional responsibility. However, we have a conflict in values: the need to sustain archaeological firms in a private, for-profit industry with the need to perpetuate our professional values. Balancing these is difficult, and really requires new business and industry models. The current labour shortage in the USA has revealed this conflict and imbalance, never really focused on before because when techs burned out and left archaeology after a few years, there were always new graduates to replace them. It was simply just another job hire, and the underlying structural problem was invisible. Today, the problem isn’t with the number of graduates, or professors and students not knowing about jobs in commercial archaeology, the problem is that we have lots of jobs, we just don’t have many careers.

Constitution Street, South Leith Parish Church © GUARD Archaeology Ltd

Conclusions

Given that Covid-19 has led to an increase in revenue for commercial archaeology, it has equally led to an increase in expenditure – archaeology has become more expensive to deliver

Recruitment is different and more difficult than in the before times

We need to value our most valuable members of staff. Techs are the most financially valuable part of the staff complement

But they don't feel valued

So what is the value we give - what is our defence of the profession and how can we ensure clients and other stakeholders see our value?