

Mouratidou, Maria (2020) Moving from industry to academia.
In: Antoniadou, Marilena and Crowder, Mark, (eds.) Modern day
challenges in academia: time for a change. Edward Elgar,
Cheltenham, UK.

Downloaded from: <http://insight.cumbria.ac.uk/id/eprint/5196/>

Usage of any items from the University of Cumbria's institutional repository 'Insight' must conform to the following fair usage guidelines.

Any item and its associated metadata held in the University of Cumbria's institutional repository Insight (unless stated otherwise on the metadata record) may be copied, displayed or performed, and stored in line with the JISC fair dealing guidelines (available [here](#)) for educational and not-for-profit activities

provided that

- the authors, title and full bibliographic details of the item are cited clearly when any part of the work is referred to verbally or in the written form
- a hyperlink/URL to the original Insight record of that item is included in any citations of the work
- the content is not changed in any way
- all files required for usage of the item are kept together with the main item file.

You may not

- sell any part of an item
- refer to any part of an item without citation
- amend any item or contextualise it in a way that will impugn the creator's reputation
- remove or alter the copyright statement on an item.

The full policy can be found [here](#).

Alternatively contact the University of Cumbria Repository Editor by emailing insight@cumbria.ac.uk.

Career transitions from industry to academia

Dr Mark Crowder

Dr Maria Mouratidou

Abstract

This study employs qualitative methods to research career transitions from industry to academia. Interviews were conducted with 25 academics from different parts of the world and with a range of subject specialisms. Findings suggest that a lack of work-life balance and the need to respond to a 'calling' are the main drivers for the transition. Participants emphasised the flexibility inherent in their role, although salary and seniority are often affected when the transition is made. The reality of their jobs was different to their expectations prior to making the transition. Despite preconceptions, working conditions are not always what was anticipated, and this can be a concern for some. This chapter adds to the corpus of knowledge in this under-explored aspect of academic life. It will also be of benefit for those who are seeking to make this transition and will help future academic scholars to navigate their career paths.

Key words: Careers, career transition, early career academics, industry

Introduction

This chapter follows on from the previous chapter, which explored the career journeys of four academics. Despite the fact that most academics begin their working careers in academia and remain there for their entire working lives (Garrison, 2005), some leave academia for a career in industry, and this has been the subject of considerable research (see for instance De Grande et al., 2014; Landry et al., 1996; Zucker et al., 1998). However, moving the other way – from industry into academia – is under-researched (Garrison, 2005; Wilson et al., 2014) even though it is a dynamic, complex and ongoing developmental process (Anderson, 2009). The main aim of this study is to understand the reasons for career transitions from industry into academia, and thereby help future academic scholars to navigate their career paths. For reasons of consistency, this chapter adopts the same general structure as chapter 2.04 (the role of external examiners), and integrates the traditional 'literature review', 'findings', and 'discussion' sections.

Methodology

Participants were selected by means of a combination of convenience and purposive sampling. Initially, people were approached whom the authors knew and who might be expected to respond. Most of these were from the UK and were from post-1992 universities. It became apparent that it would be necessary to expand the study to obtain a broader understanding of the issues (Patton, 2002), and therefore purposive sampling was employed to identify participants in the Russell Group and others who were situated outside the UK. Interviews were conducted with 25 academics in nine UK universities, telephone and Skype interviews with seven academics in the USA, and one Skype interview with a German academic. Areas of specialism ranged from 'hard science' (such as Chemistry and Mathematics) through the 'social sciences' (such as psychology and sociology) to 'the arts' (acting and fashion). A summary of participant demographics is given in Table 1.

Insert Table 1 about here

Participants were asked to discuss their careers – why and how they entered academia. Interviews were open ended, and this encouraged a free-flowing discussion. To facilitate the conversation, interviews were not recorded. Notes were made during the sessions, aiming to capture the essence of the discussion (Glaser, 1998).

Thematic analysis was employed to analyse the data (Braun and Clarke, 2006), and to highlight which issues were most important to participants and identify patterns of explicit and implicit content. The main themes are discussed below and are illustrated by quotes from participants.

Findings and discussion

This study sought to answer two main questions. Firstly, why do people wish to make the move from industry to academia? Secondly, what are participants' thoughts upon their career choices?

Why do people make the career transition from industry to academia?

When the data were analysed, two main themes emerged: participants discussed the dual needs of balancing their lives and following their passion (Mainiero and Sullivan, 2006).

The need for work-life balance

Maria (USA) stated that:

I used to work in project management, and I could be sent anywhere in northern Europe. I never saw my family. That's one of the reasons I wanted to change career...I wanted to see my sons growing up. Now [that I'm an academic] I can see my husband and my children. I'm not in work every day, so I can take them to school and I can play with them. I can help them with their homework.

Maria is based in the USA, but her duties took her to another continent, and this interfered with her well-being (Greenhaus and Nicholas, 1985; Greenhaus and Powell, 2017). Similarly, Lucy (UK, post-1992):

I enjoy my work because of the flexibility. I can work from home, take my kids to school, cook their meals during the day, keep up with the housework, and still be productive. In my last job, I had to be in the office all the time. It meant that I couldn't keep up with housework and shopping. I felt like I never saw my kids.

Work-life balance issues are not unique to women. Several men expressed similar views. For instance, Tony (male, 55, USA) felt that:

In my previous job, I made many personal sacrifices. I worked during weekends in order to be seen as successful. It felt like I was constantly in work. I had no time or energy to enjoy my family life. This really hit home five years ago when my eldest daughter left home for university. I realised that I'd missed her growing up. It was time to change career.

It is clear that family-work conflict can be a trigger for career transition (Greenhaus et al 2001). However, this was not the only theme that emerged from this study.

Teaching is a calling

Some lecturers have a desire to give something back to society (Wilson et al., 2014), and some simply have a desire to teach (Garrison, 2005). Elyssia (UK Russell Group) offered this analogy:

Academia is a calling. An academic job is like a lift. You meet students on the ground floor and then gradually raise them higher. They re-join society when they are on the top floor. It's a privilege and an honour to be involved in their journey.

This idea of academia being a 'calling' is a key theme in the literature (e.g. Mabry et al., 2004) and was mentioned by many participants. The following quotes were typical:

I've always wanted to teach. My last job was just a stop-gap until a lecturing job came up. That was always what I wanted to do (Manfred, Germany)

I think I'm good at teaching. I enjoy it – I always have. When I was in management, it was the part of the job that I liked best, and I wanted to do more of it. When a lecturing position came up in my field [Engineering], I jumped at it (Michael, USA)

Katy (UK post-1992 university) stressed the need for personal authenticity.

Part of the reason I changed career is making a choice aligned with my values and what I believe I am meant to be. I found a place where my values match up with the values of the institution.

Serendipity and chance

Many participants did not plan their careers from childhood. Some people happened to be working in an area and ended up teaching it – an opportunity arose, and they took it:

I was in IT and was working on my PhD. The university wanted someone to deliver a lecture, and I said I'd do it. It went down well, and I got offered another one, then another one. I suddenly found that I was doing more lecturing than IT. Being a lecturer was not something I'd ever considered. I was enjoying it. It was more fun than my day job, and I wanted to do more of it. So, near the end of my PhD I applied for a lecturing job and got it (Andrew, UK post-1992 university)

I knew someone who was a lecturer, and she said that her place was about to advertise for an associate lecturer. She asked if I'd be interested, and I said 'yes'. She let me know when the advert came out. I applied, and I got the job. I only got in by accident (...) because someone mentioned it to me, it was never my plan (Alison, UK post-1992 university)

Reason for choosing current employer

Although many participants felt that either they had been called to the profession or had ended up there for serendipitous reasons, many felt constrained in their choice of employer. Indeed, evidence from this study suggests that certain types of university attract career academics, whilst other types of university attract people with industry experience. Participants felt that the nature of the chosen university is important and thought that the 'top' universities (i.e. the UK 'red brick' or USA 'Ivy League' universities) favoured an academic background. This is reflected in the literature (for instance Anonymous Academic, 2014). Martin's (UK Russell group) comment was typical:

Oxford and Cambridge are used to winning Nobel Prizes. They like people who are steeped in academia and have a long scroll of four-star publications behind them.

More broadly, research-based universities have different specialisms, and therefore different needs, than universities that are primarily teaching-based universities. Elyssia (UK Russell Group) argued that:

It's simple. Research-based universities need people who can do research, and so a background in academia is essential.

Helen (USA) agreed with this sentiment, but wondered if there was more to it than this:

Harvard has a reputation for academic excellence. There's a perception that unless I have been in academia forever, then it's not worth applying for a teaching job. That's true to some extent, but they have an outreach policy that actively supports veterans of the armed forces, and they are encouraged to apply. They would excel in teaching jobs in leadership or management, or perhaps military history. So, it's not all about being a career academic.

The issue of second careers for military veterans is beyond the scope of this chapter (but see Vigoda-Gadot et al., 2010 for an interesting analysis).

Others simply felt that the top universities "*recruit in line with their reputation*" (Tony, USA) and because they "*are seen as [being] academically strong, they will recruit lecturers with a strong academic background*" (Alan, UK post-1992 university). Therefore, "*If you are from industry, don't even bother applying there*" (Martin, UK Russell Group). However, participants from outside the Russell Group stressed the benefits of lecturers having industrial experience. For instance, Mary (UK post-1992 university) argued that:

Having been in industry, I know key people. I have connections. I can bring in guest speakers. All of that helps the students. I don't think I could do that properly if I had stayed in higher education for my whole career (Mary, UK post-1992 university)

A much more common view (18 participants) was that, to some extent, moving from industry into academia depends upon one's area of expertise, with some subjects having industrial experience as the norm. The following comment was typical of those from an 'arts' background:

Acting isn't like maths. How can you teach people to act like a tree? How can you teach them to play the North Wind on stage? You can't do that from a book. You need the practical experience of doing it." (Alan, UK post-1992 university)

Michael (USA) echoed this viewpoint, but interestingly, his background is more 'science-based':

Engineering needs a strong industry focus. You need the mathematical knowledge. You need the structural knowledge. But, there's no substitute for learning from people who've done it in practice. You learn from their experience. What works? What doesn't work? What problems will you encounter? It's also very important to allow students to explore...experiment...learn for themselves. You can't constrain them too much with theory or they will never be effective. You have to use your practical experience when you are guiding them. You can't get than out of a text book (Michael, USA).

Others, however, argued that in some subjects, lecturers with prior experience in industry were rare, and these subjects prized academic experience above this. Notwithstanding Michael's comment above, these views tended to be expressed by lecturers in the sciences. Typical comments were:

Some subjects are inherently theoretical. Mathematics is one of those – it's very, very theoretical and so there is a need for tutors who have a really deep understanding of the subject. There are some tutors who've used statistics in the 'real world' ...that's ideal for applied math, but for theoretical work, you have to know the theory inside out. There's no getting around it (Tony, USA).

Astronomy is highly mathematical, and lecturers need a really solid grounding in the technicalities. Sure, they've had practical experience in the field, but these are university-funded projects, not private sector projects. Even when they are on site, they are academics (Peter, UK post-1992 university)

One science lecturer (Katy, UK post-1992 university) agreed that the sciences favoured career academics, but suggested that there might be a different reason for this:

It all comes down to the number of jobs out there...there are quite a few chemists working in the research labs of the big pharmaceutical companies, and there are experts

in statistics working for polling companies. But, there simply aren't many private sector particle physicists out there. So, it's not surprising that most lecturers in particle physics are academics through and through.

Topics in the field of management were widely felt to require a mix of industry professionals and career academics. As Sajjad (UK post-1992 university) put it:

Business school teaching profiles are a mix of people who have never left school and people who have been 'out there' and done it. You need both. You need the knowledge of theory, but you need to complement this with practical application of the theory. The theory doesn't always work, and it's great to be able to tell the students about your experiences.

There are also other, less-tangible benefits for those with prior industrial experience. Henry, a Chemistry lecturer (UK post-1992 university) felt that credibility is important:

Students are paying a lot of money for their course. They need to know that the stuff we teach them is actually used...that it means something. I can stand in front of them and tell them that I've used Theory X in the workplace, this is how I did it, and this is what the outcome was. That gives me a credibility that's hard to replicate in another way.

Participants' perceptions of their career choices

When participants' perceptions of their careers were analysed, there was one over-riding theme: their expectations are different from the reality. Within this, there were several subthemes, and these are discussed below.

Role

Making the move into academia often involves considerable nervousness and uncertainty:

I was actually very worried about my first few lectures. Did I know my subject well enough? Did I have credibility with the students? Did I have the credibility with my colleagues? (Helen, USA)

Blenkinsopp and Stalker (2004) suggest that such feelings are common among newly appointed academics, regardless of their background. Indeed, transitioning from industry to academia can be something of a culture shock (Louis, 1980) – a sentiment which Manfred (Germany) endorses:

Yes, that's definitely true, or at least it was for me. It was a complete change of direction...a totally new career...and I was excited, but I was also nervous. Before I started, I thought I knew what I was letting myself in for, but once I'd actually started, I realised that I was totally unprepared for the reality of life as an academic.

Manfred's experiences were far from unique. Participants claimed that their expectations of what a lecturing job would be like were different from the reality. Several found that the job could be frustrating. Russell's (UK post-1992 university) experience was typical. He had been a senior manager in an engineering company before making the move into academia:

The administration is massive. I hadn't expected that when I started. I was used to being in charge. I had people to do my admin for me. Now, I have days where I am bogged down in admin work and have no time for teaching preparation or research. Maybe if I'd moved through my career solely in academia I would have been ready for it and it wouldn't be as frustrating.

Alison (UK, post-1992 university) was also initially unprepared for life as an academic. As she stated:

I was very naïve when I came into academia. I thought that lecturers had a cushy job – all I had to do would be to spend a few hours teaching, and that would be it. It would be easy work. Within a couple of weeks, I realised I was wrong. The pastoral side of the job takes up so much time, and then there's a ton of admin on the top.

Sentiments such as these reflect themes raised elsewhere in this book and reinforce Mabry et al.'s (2004) contention that an academic position is far more than a 40-hour per week job. Thus, it may be a mistake to try to do everything at once. As Alan (UK post-1992 university) put it, *"It takes time to get to know the ropes. Don't try to do too much too early. Get used to things first."*

Another factor that had been overlooked by some newly-transitioned academics was overconfidence in their own knowledge:

I thought that because I had been in management for 20 years, then I must know all about it. How wrong I was! One thing I discovered very quickly when I entered academia was that I had a lot to learn! (Bob, UK post-1992 university)

This view is supported by Mabry et al. (2004) who argued that new academics must therefore be prepared to dig much more deeply into theory and get beyond a 'training' mentality. Interestingly, industry-specific knowledge can rapidly become dated. As a result, a move from industry into academia may not be easily reversible (Blenkinsopp and Stalker, 2004). Tony (USA), who has been in academia for ten years and who was originally an engineer by trade, agreed. As he stated:

When I started [in academia], my knowledge was bang up to date. I knew what was 'hot'. I knew what was considered 'important'. Now I'm starting to lose touch with my field. I meet socially with my former colleagues and I'm often struggling to follow what they are saying.

Jenny (UK, post-1992 university) agreed, and in her case, despite having a legal background, the issue was a decreasing familiarity with the relevant legislation:

I used to be a contract expert, and I knew the law inside out. I've been here [in academia] for seven years, and I've not even looked at contract law since then – it's not what I teach. So, I'm losing touch and if I tried to go back, I would struggle because I'd be seen as being out-of-date.

Blenkinsopp and Stalker (2004) suggest that these experiences are common, because people's experiences become less and less relevant as they spend time away from their field. As Henry (UK post-1992 university) put it, *"I'm stuck in academia now, and I can't go back...not that I want to – it's a great job!"*

Interestingly, people who have higher qualifications are likely to find the transition easier (Owen and Flynn, 2004). This is supported by our participants. For instance, Jake (UK, post-1992 university) claimed:

It's like I've never been away. I spent all those years studying, I had a few years out in industry, and now I'm back. It's just that I'm teaching now, rather than studying.

Therefore, Wilson et al. (2014) suggest that for industry professionals with higher degrees, a move into academia should be regarded as a return rather than an entry into the academic arena.

Status

Wilson et al. (2014) suggest that academia has a prestige factor and that lecturers have a high status in society. Indeed, a need for status can be a driver for career transition. However:

This status only exists in the minds of outsiders. People who are not in academia can have an inflated view of the status that lecturers have. It's completely different once you are in. Your expertise means nothing. Even having a PhD means nothing – it's just an entry requirement. The only things that matter are whether you can bring money in or whether you have large research outputs. That's what gets you status in academia (Russell, UK post-1992 university).

An important distinction was made by Tony (USA):

Prestige, or status, is not the same as seniority. As a lecturer, you might have status compared to other industries, but you don't have seniority because you don't start at the top (...) most people start near the bottom.

Thus, increased prestige is not guaranteed, and it is often necessary for people to take a reduction in seniority if they wish to move from industry into academia (Pollock, 1999). For instance, as Garrison (2005) observes, number of years' experience in industry is not necessarily a predictor of starting position. Indeed, people may often find that they are in more junior roles within the university than they were within their industry career, which may cause problems when trying to adjust to their new role (Wilson et al., 2014). Henry (UK post-1992 university) summed up the views of many:

There's definitely a hierarchy. It depends where you join it. If you join as an associate lecturer, you get an awful lot of c**p thrown at you in your first year. If you join as a professor who is very REF-able [i.e. has a strong research profile], you can pretty much design your own workload and do whatever interests you.

Working conditions

There are several aspects to 'working conditions'. One of the most obvious is salary. Prior to entering academia, there is often an expectation that, being one of the recognised professions, lecturers would be very well paid. This is not the case (Mabry et al., 2004), as Henry (UK post-1992 university) observed:

When I was thinking about moving into lecturing, I thought I would be in line for a big increase in pay. As soon as I looked at the job adverts, I realised that I was wrong!

Indeed, Garrison (2005) found that many people experience a significant drop in salary on taking up an academic position. This was reflected in the present study, where UK participants reported a reduction of between £2,000 (Elyssia, UK Russell Group) and £15,000 (Malcolm, UK post-1992 university). This was also reflected in Germany, where Manfred experienced a pay decrease of €5,000 when moving from his economics job into a lecturing position. In the USA, the situation was similar with reductions of \$3,000 and \$9,000 (Helen and Tony

respectively). Only five participants stated that they saw their salaries rise when they left industry, all of whom were based in the UK. Moreover, the demands of the role and the long hours are likely to limit people's ability to augment their salary through consulting (Mabry et al., 2004).

Beyond the issue of salary, there was a broad consensus amongst participants that working conditions are more flexible in academia than in industry, and academics have a high degree of autonomy (Garrison, 2005). Sajjad (UK post-1992 university) suggested that:

I was used to having a regular lunch break, to leaving work at a particular time, to having regular meetings with my boss, and generally having to account for what I was doing. Academia isn't like that. Basically, my lunch happens whenever I want it to, provided I'm not teaching. I can come and go as I please, as long as my teaching is covered, and I hardly ever see my boss. All of that took some getting used to, and my experience in industry was no help at all – if anything, it made the transition to academia harder than it should have been.

Others had similar views:

The freedom and flexibility took a long time to get used to. When I was at my last job [economist], if I wasn't at my desk, I was presumed to be skiving. Now if I'm not at my desk, I'm presumed to be working (Manfred, Germany).

Another thing is the looser structure to your day. I used to clock on and off [as an architect], and I had regular lunch breaks at a certain time of day. It took me a while to accept that I could now come and go without reporting in, and that I can have lunch whenever I need to. As long as I am there when I have to teach, or am there for some important meetings, then I'm allowed to manage my day as I see fit" (Andrew, UK post-1992 university).

Maria (USA) summed up her feelings succinctly when she stated that *"you are treated more like a grown-up in academia than you are in business"*.

As noted above, one of the main reasons that people undertake a career transition from industry to academia is their expectation of an improved work-life balance, and indeed this is often the case in practice (Kinman and Jones, 2008). However, academic working conditions are entirely foreign to many of those transitioning from industry (Fogg, 2002) and many new academics experience problems when attempting to balance their working and home lives (LaRocco and Bruns, 2006). This was a sore point for many participants:

It's not a 9-5 job. It's not that sort of job, and you know that when you take it on. But, it still comes as a shock when you realise you are still answering emails at 10 o'clock at night (Peter, UK post-1992).

You never get away from work. Students are still emailing you all through the night (Malcolm, UK post-1992 university)

There's no work-life balance. You are teaching in the week, and at the weekends, you are preparing for next week's teaching. You can't escape it. There's no break (Helen, USA).

Interestingly, whilst accepting the truth of this, not everyone agreed that this was a problem:

The autonomy is two-way. You can't take the flexible working hours and then refuse to take a phone call just because the timing is inconvenient. You can't have it both ways (Katy, UK post-1992 university)

People aren't chained to their computers on their research days. We might nip out and do some shopping, or we might go and meet a friend for lunch. We don't have to be accountable for every single minute of our lives. So, if we're given that sort of slack, I think it's fair enough to have to come into work on a Saturday if there's an open day. It works both ways (Andrew, UK post-1992 university).

Hence, some participants bemoan the lack of work-life balance, whilst others view the situation considerably more positively.

Conclusions

This chapter explores the reasons for career transition from industry into academia. It found that a lack of work-life balance and the need to respond to a 'calling' led were the main drivers for the transition. Once in the job, academics reflected upon their new career. They emphasised the flexibility of their role, although this did tend to be at the expense of salary and seniority. The reality of their jobs was different to their expectations prior to making the transition. Working conditions are both flexible and demanding, and whilst work-life balance was expected to improve upon entering higher education, this did not always happen.

This chapter adds to the corpus of knowledge in this under-explored aspect of academic life. Moreover, by obtaining an international perspective and a perspective from a wide range of subject specialisms, our data suggests that the themes identified in this study are common, extend beyond national boundaries, and are relevant regardless of subject specialism. We would welcome further studies in this area.

References

- Anderson, J. K. (2009), The work–role transition of expert clinician to novice academic educator, *Journal of Nursing Education*, 48(4), pp. 203–208.
- Anonymous Academic (2014). Early career academics would be better off working in ‘less prestigious’ unis. [online]. The Guardian, 26th September. Retrieved 2nd November 2018 from <https://www.theguardian.com/higher-education-network/blog/2014/sep/26/academics-anonymous-early-career-academics-work-less-prestigious-universities>
- Bandow, D., Minsky, B. D. & Voss, R. S. (2007), Reinventing the future: investigating career transitions from industry to academia, *Journal of Human Resource Education*, 1(1), pp. 23–37.
- Billings, D. M. (2003). What does it take to be a nurse educator? *Journal of Nursing Education*, 42(3), pp. 99–100.
- Blenkinsopp, J. & Stalker, B. (2004), Identity work in the transition from manager to management academic, *Management Decision*, 42(3/4), pp. 418–429.
- Borba, J. A. (2001). From K-12 school administrator to university professor of educational administration: similarities, differences, risks, and rewards. *Education*, 122(1), pp. 50–59.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), pp. 77–101.
- Bruneel, J., Este, P.D. & Salter, A. (2010), Investigating the factors that diminish the barriers to university–industry collaboration, *Research Policy*, 39(7), pp. 858–868.
- De Grande, H., De Boyser, K., Vandevelde, K. & Van Rossem, R. (2014). From Academia to Industry: Are Doctorate Holders Ready? *Journal of the Knowledge Economy*, 5(3), pp. 538–561
- Dietz, J. S. & Bozeman, B. (2005). Academic careers, patents, and productivity: industry experience as scientific and technical human capital, *Research Policy*. 34(3), pp. 349–367
- Fogg, P. (2002), What happens when politicians and business leaders become professors? *Chronicle of Higher Education*, 48(26), pp. 10–12.
- Garrison, C. P. (2005). Who moves from industry to academia and why? An exploratory survey and analysis. *Education*, 125(3), pp. 414–421

- Glaser, B.G. (1998). *Doing grounded theory: Issues and discussions*. Mill Valley, CA: Sociology Press.
- Greenhaus, J. H. & Nicholas J. B. (1985). Sources of conflict between work and family roles. *Academy of management review*, 10(1), pp. 76-88.
- Greenhaus, J. H. and Powell, G.N. (2017). *Making work and family work: From hard choices to smart choices*. New York, NY: Routledge.
- Kinman, G. & Jones, F. (2008). A life beyond work? Job demands, work-life balance, and wellbeing in UK academics. *Journal of Human Behavior in the Social Environment*, 17(1-2), pp. 41-60.
- Jaffe, A.B., Trajtenberg, M. & Henderson, R. (1993). Geographic localization of knowledge spillovers as evidenced by patent citations. *Quarterly Journal of Economics*. 108(3), pp. 577–598.
- Landry, R., Traore, N. & Godin, B. (1996). An econometric analysis of the effect of collaboration on academic research productivity. *Higher Education* 32(3), pp. 283–301.
- LaRocco, D.J., & Bruns, D.A. (2006), Practitioner to professor: an examination of second career academics' entry into academia, *Education*, 126(4), pp. 626–639.
- Louis, R.M. (1980), Career transitions: varieties and commonalities, *Academy of Management*, 5(3), pp. 329–340.
- Mabry, C. K., May, G. L. & Berger, N. (2004) Moving from practice to academia: three perspectives, *Human Resource Development International*, 7(3), pp. 395-402.
- Mainiero, L.A. & Sullivan, S. E. (2006). *The Opt Out Revolt: Why People are Leaving Companies to Create Kaleidoscope Careers*. New York, NY: Davies-Black.
- Owen, L., & Flynn, M. (2004), Changing work: mid-to-late life of transitions in employment, *Ageing International*, 29(4), pp. 333–350.
- Patton, Q. M. (2002). *Qualitative research and evaluation methods*, 3rd ed. London: Sage
- Pollock, D. M. (1999). Going from the pharmaceutical industry to academia. *The Physiologist*, 42(5), pp. 323-326
- Thomsen, S.R. & Gustafson, R.L. (1997). Turning practitioners into professors: exploring effective mentoring. *Journalism and Mass Communication Educator*, 52(2), pp. 24–32.
- Vigoda-Gadot, E., Baruch, Y. & Grimland, S. (2010). Career transitions: An empirical examination of second career of military retirees. *Public Personnel Management*, 39(4), pp. 379-404.

- Wilson, M. J., Wood, L., Solomonides, I., Dixon, P. & Goos, M. (2014). Navigating the career transition from industry to academia. *Industry and Higher Education*, 28(1), pp. 5-13.
- Zucker, L.G., Darby, M.R. & Armstrong, J. (1998) Geographically localized knowledge: spillovers or markets? *Economic Inquiry* 36(1), pp. 65–86.