

# Rethinking the PhD in geography: overview and introduction

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**Abstract** Today many Higher Education Institutions (HEIs) are actively upscaling, refining and improving their existing PhD programs. Geography PhD programs have not been immune from these developments. The intention of this Special Issue (SI) is to further build and fortify the community of interest which is now forming around the changing trajectory of the PhD degree in Geography by: (a) providing a brief resume of knowledge and thinking about the principal problems which continue to impede PhD programs and documenting innovative and best practice in different national settings, and; (b) reflecting critically upon new contexts and trends which are working on HEIs, Departments of Geography, and PhD programs and providing space to articulate—or to reclaim—alternative value systems for PhD programs

and to reflect upon the types of PhD structures and program designs these values might give birth to. This SI comprises a series of short papers, commentaries and interventions, incorporating insights from PhD program directors, current and recently graduated PhD students, experienced PhD supervisors, newly appointed faculty, and scholars of pedagogy.

**Keywords** PhD · Reform · Innovative practice · Values · Public University

## Introduction

Today many Higher Education Institutions (HEIs) are actively upscaling, refining and improving their existing PhD programs. Some are even working to create a new generation of research degree or perhaps even research degrees which transcend the traditional research dissertation (professional doctorates, doctorates by publication, etc.). Geography PhD programs have not been immune from these developments. Though we are accustomed as academics to sharing our research findings as widely as possible, reflections upon academic practice, program organization, and administrative service are rarely shared beyond the walls of our own departments, universities, and countries. But times are changing. The intention of this Special Issue (SI) is to further build and fortify the community of interest which is now forming around

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- a. providing a brief resume of knowledge and thinking about the principal problems which continue to impede PhD programs and documenting innovative and best practice in different national settings, and;
- b. reflecting critically upon new contexts and trends which are working on HEIs, Departments of Geography, and PhD programs and providing space to articulate—or to reclaim—alternative value systems for PhD programs and to reflect upon the types of PhD structures and program designs these values might give birth to.

A series of short commentaries and interventions follow, incorporating insights from PhD program directors, current and recently graduated PhD students, experienced PhD supervisors, newly appointed faculty, and scholars of pedagogy. The purpose of this brief introduction is to paint a canvas upon which the contributions to follow might be located and framed.

### Rethinking PhD programs: challenges and innovations

In the past two decades, PhD programs have been placed under heightened scrutiny (Maki and Borkowski 2006; Boud and Lee 2009; Golde and Walker 2009; Walker et al. 2008; Nerad and Evans 2014). Consensus opinion would appear to hold that these programs retain continuing value and importance, and contribute significantly to the careers of individual degree-seekers, the health of academic disciplines, the performance and reputation of HEIs and the economic, social, political, cultural and social well being of society at large. Nevertheless critics have identified a number of general deficiencies and weaknesses which would appear to require attention and remedy. Of course the extent to which criticisms of existing programs are valid remains an open question and it is crucial to recognize that the structure, quality and performance of programs does vary considerably from one discipline to another, one institution to another, and one country to another. Still some criticisms have been particularly universal, consistent and acute. We might group such criticisms into three broad areas.

PhD programs recruit students too narrowly and reproduce elitism, and class, gender, racial, ableist and other bias within the academy

Doctoral education remains the domain of privileged groups even after decades of effort to diversify both the undergraduate and graduate communities, faculty and the professoriate (Monk 2004; Monk et al. 2004; Sanders 2006). Moves to broaden the demographic profile of applicants and registered students have been mediated by debates over definitions and concepts, funding cut backs, the rise of more flexible programs, and internationalization.

- Reflecting contestation over these same terms in wider society, there exist fundamental differences in how “diversity” and “inclusion” are defined and valued in HEIs (Schlemper and Monk 2011; Solís and Miyares 2014). Definitional and conceptual clarity matters; HEI strategic plans often set goals and objectives and associated key performance indicators (KPIs) and metrics. If these plans direct effort towards less than useful destinations from the outset they can conspire to do more damage than good.
- The rise of a global graduate studies’ ‘market’ place’ and inter-institutional competition for the brightest and best high fee paying PhD students (led by global ranking ‘league’ tables and the like) has led many universities to recruit more expansively and to build more cosmopolitan graduate schools. Often however international recruitment strategies merely reproduce class, gender, racial, ableist and other bias in sending countries. Rarely do they pause to reflect upon the responsibilities they shoulder vis a vis sending states and the obligations they have to act ethically and to ‘care from afar’. Moreover, whilst considerable strides have been made, work remains to be done in many HEIs to ensure that international students are properly integrated into programs and that the linguistic, academic, and social and cultural needs of these students are properly attended to.
- The rise of interest in life-long learning has led some institutions to design and deliver programs in unconventional formats (evening courses, short intensive modules, MOOCs, distance learning modules, and so on) opening up new opportunities for those who have retired, who require to work on

a part or even full time bases, whose biographies have followed the ‘family track’, and others who prefer part-time study. Alone however, greater program flexibility will not address the power asymmetries which underlie inequalities in access to opportunity.

- Widespread fiscal crises and downsizing of welfare states has resulted in insufficient state funding for PhD studentships and scholarships (certainly given demand), a growth in self-funded students, and a greater number of PhD projects being funded by external stakeholders including private sponsors. Whilst these developments have opened up opportunities for some non-traditional students, they have also disproportionately benefited those who are most able to pay and whose research interests dovetail with those of stakeholders.

A key question remains then, how best to encourage, support, and harness greater diversity within the PhD student body?

#### PhD programs educate students too narrowly

Students can emerge from PhD programs with a narrow training in research, an insufficient skill set and range of competencies, and an inability to undertake research on subjects that go beyond their particular PhD topic. This is especially true of PhD programs (which are becoming fewer in number) which are based upon the so called ‘master-apprentice model’—where a lone professor presides substantially over the activities of their student. Whilst some PhD students are furnished with an opportunity to teach (often tied to funding), training and mentoring is not always sufficient and teaching portfolios are not always structured to permit breadth of opportunity or a planned progression in skill acquisition. Moreover given that significantly more PhD awards are made each year than there are faculty hires, many students also graduate without the hope of securing an academic position and yet with little nous of how to plot a career beyond the academy (Åkerlind and McAlpine 2009; Solem et al. 2013; Monk et al. 2012). Beyond acquiring theoretical literacy, methodological expertise, and empirical knowledge in their chosen field of enquiry, critics variously assert that students

who graduate from PhD programs (Nerad 2004; Pruitt-Logan and Gaff 2004; Solem et al. 2013):

- Should emerge with a understanding of the broad cutting edge ideas, debates, concepts, and theories in the wider discipline, informed both by an appreciation of seminal and leading texts and thinkers, and by current thinking and research.
- They should present themselves as advanced bearers of the intellectual skills of independent reading, analysis, synthesis, reflection, and critical thinking.
- They should be intellectually responsible, adaptable, curious, and creative, and ready to begin the job of taking responsibility for their own research trajectory and learning.
- They should show an appreciation of the contribution of Geography to the formation of informed citizens, display an interest in ethics, and be prepared to formulate views on social, economic, cultural, technological, and environmental actions which both threaten and support the public good.
- Ideally, they should also emerge with a well-rounded appreciation of the breadth and richness of knowledge and a recognition that Geography has much to gain by engaging with perspectives, theories, concepts, and methods in cognate disciplines.
- They should emerge as skilled and competent educators, with an awareness of pedagogical debates and innovative practices, and capable of teaching at various levels and in various formats (lecturing, demonstration, field trips, tutorials, practicals etc.).
- They should be in possession of key professional skills such as collaborating effectively, working in teams, organizational and managerial skills etc. and should be aware of careers open to them beyond the academy.

Evidently much responsibility falls on PhD programs. Perhaps too many claims are being made on these programs. Nevertheless a key question remains, what scale and mix of research training should be provided to students (theory, substantive methodological, disciplinary, inter disciplinary, professional development, and career modules) and how might this training be delivered effectively?

PhD programs preside over high drop-out rates and extended times for completion. Some furnish students with less than optimum learning experiences

Undoubtedly, PhD programs in the past have ‘lived’ with if not actively fostered a ‘survival of the fittest’ culture and high attrition rates have followed (Lovitts 2001, 2007). In addition, in the case of programs which favor the master-apprentice model or a derivative of this model, and owing in some cases to excessively exploitative relations between the professor and the student, some PhD theses took longer to bring to completion than was strictly necessary. Nevertheless, although sometimes advocated as a measure of the ‘effectiveness’ of PhD programs, there seems to be little clear evidence that time to degree or completion rates are accurate measures of program quality or of the potential for success of students. Evidently, student funding, the relationship between supervisors and students and monitoring protocols and practices sit at the core of these issues.

- The failure of many students to secure proper funding packages (noted above) results in many taking on part-time employment and/or excessive student loans. Students who exist in a state of precarity and impoverishment throughout their course are clearly more likely to drop out or submit their theses late. They are less likely to enjoy a healthy work-life balance and more likely to find themselves ‘burnt out’ as they strive to sustain a range of competing demands on their scarce time.
- Beyond the master-apprentice model a variety of PhD supervisory arrangements have been tried and tested, including dual supervision, panel supervision, inter-disciplinary supervision, inter-institutional supervision, shared supervision between a university professor and an external stakeholder, and formal supervisory contracts. The strengths and weaknesses of these alternative formats remains open to debate. Clear expectations for both students and supervisors from the outset will contribute to effective supervisor-student relations. These relations would also benefit from better management by department heads of supervisory loads (for example, better planning of the number of students supervisors recruit and/or

ensuring that staff supervising a significant number of students are afforded relief from other duties).

- Institutions are now introducing more transparent, rigorous, and effective biannual, annual and multi-annual monitoring of the supervisor-student relationship, and of student progress. Timely intervention to arrest difficulties before they become intractable problems is of central importance.

A key question remains then; how might one improve the quality of the learning experience, raise completion rates and decrease times-to-degree whilst defending the right of students who (perhaps owing to a commitment to deep theoretical reflection, data collection of scale, or overseas field work) require extended deadlines?

Already, these criticisms have led to a whole number of remedial measures and ameliorative actions. At the faculty, graduate program, and university levels, a range of initiatives have sought to introduce classes, workshops, and seminars aimed at improving doctoral education. Similarly a number of professional associations have taken the lead in developing discipline-specific materials, a good example being the Preparing Future Faculty program begun in the US in 1993 and currently sponsored by the Council of Graduate Schools. Other efforts at the foundation and government agency levels have focused on encouraging interdisciplinary theme-based doctoral programs such as the Integrative Graduate Education and Research Traineeship (IGERT) program which the US National Science Foundation (NSF) has funded for many years (now supplanted by the NSF Research Traineeship program) and the German Research Foundation’s Research Training Groups (Graduiertenkollegs) initiative. Other NSF schemes support programs focusing on particular themes and populations such as the ADVANCE program aimed at leadership training for women and under-represented groups. In the US, some private foundations have also invested in doctoral reform as evidenced in the Carnegie Foundation for the Advancement of Teaching’s Carnegie Initiative on the Doctorate and the Woodrow Wilson National Fellowship Foundation’s Responsive PhD project. In the UK, as another example, substantial funds have been invested at the national level in Centres for Excellence Teaching and Learning (CETL), some of which concentrate on improved training in teaching

and learning for post-graduate students. The CETLs efforts build on earlier projects which were merged into the Higher Education Academy (HE Academy) in 2004 to support the enhancement of learning and teaching in higher education. Nearly all UK universities now require that new faculty with less than three years teaching experience complete a certificate program accredited by the HE Academy.

Geographers have also been involved in a number of initiatives aimed at identifying strengths and weaknesses in PhD programs and reforming doctoral practice in their departments and universities.

- Geography students have been included in national surveys of student experiences of PhD programs; for example Golde and Dore's (2001) study of 4,000 students in eleven disciplines in twenty-seven major universities in the US; the National Association of Graduate and Professional Students survey of 32,000 students in 5,000 doctoral programs in 400 universities in the US and Canada (Fagen and Wells 2004); and the 'PhDs-Ten Years Later' survey which surveyed 6,000 PhD recipients from 61 universities ten to fourteen years after they finished their PhDs in 1996–1997 (Nerad and Cerny 1999; Nerad et al. 2004, 2007; Babbitt et al. 2008; Solem et al. 2013b).
- Geographers have also offered critical reflections upon the health of PhD programs provided by geography departments and have criticized some programs for reproducing ethnic, age and gender imbalances in the discipline (Liu 2006; Pulido 2002; Sanders 2006), for falling prey to various neoliberal reforms (Castree and Sparke 2000; Castree 2005; Crang 2007; Demeritt 2004; Dowling 2008; Purcell 2007) and for failing to mentor and prepare graduates for subsequent academic and non academic careers (Solem and Foote 2004, 2006, 2009; Solem et al. 2008).
- Geographers have also been involved in a number of broad national and interdisciplinary initiatives aimed at reforming doctoral practice in their departments and universities such as the US Preparing Future Faculty programme, the US National Science Foundation's IGERT and ADVANCE programs (mentioned above), the Carnegie Foundation for the Advancement of Teaching's Carnegie Initiative on the Doctorate and the Woodrow Wilson National Fellowship

Foundation's Responsive PhD project, and in the UK's CETL projects.

- Geographers have also developed several discipline specific initiatives in the UK and US (Brown et al. 2002; Clark et al. 2002; Healey and Jenkins 2003; Jenkins 1996; Peck and Olds 2007), such as the Geography Faculty Development Alliance (GFDA 2009), the AAGs Enhancing Departments and Graduate Education (EDGE 2009) project (Solem et al. 2009, 2013; Foote and Solem 2009) and the National Association of Geoscience Teachers early career faculty initiative.

This Special Issue should be located against the backdrop of the reflection and rumination which has occurred to date. Its goal is to contribute towards greater sharing of experience, knowledge and practice particularly across international borders.

### Rethinking the PhD: the politics of change

Higher education institutions worldwide are being forced today to reboot and retool for a new era (Kerr 2006). It is impossible to conduct a debate titled 'rethinking the PhD degree' without a critical discussion of reform within the HEI sector and the politics of the pressures now being placed upon PhD programs (Erickson 2012; Foote et al. 2012). To this end there would appear to be a whole number of progenitors of recent reflection and introspection of the mission, structure, and status of the PhD degree, including: the introduction of neoliberal education policies and funding models; the rise of global ranking methodologies and league tables and inter-institutional competition; the parallel development of inter-institutional collaboration, consolidation and merger; the ascendance of a public administration culture and rise of new regimes of accountability; a depleted public realm and foreclosure of genuine agonistic democracy; the enhanced global mobility of staff and students; the dynamics of a new knowledge economy; advances in research on pedagogy; new communication technologies and virtual learning environments (VLEs), and; new trends in the life-course and parallel emphases upon lifelong learning. How HEIs chose to respond to these challenges will prove crucial in shaping the future of the PhD degree.

The growing importance of the entry of universities into the global knowledge economy, the meaning and implications of the rise of ‘for profit’ education and emergence of inter-varsity competition for talented faculty, student fees, research funding, and esteem would appear to have spawned a particularly important literature (Slaughter and Rhoades 2004; Mamdani 2007; Mirowski 2011; Rhoten and Calhoun 2011; Breneman et al. 2012). Bok (2003) for instance has sought to trace the growing commercialization of the university wrought by its insertion into and response to the global knowledge economy. Breneman et al. (2006) seek to chart the multiple ways in which universities are now attempting to turn ‘learning into earning’. Washburn (2006) likewise points to the ways in which corporate ties to universities threaten public confidence in the university as a site for impartial knowledge production. In a particularly critical reading of these trends Newfield (2008a, b) argues that the corporate assault on the university is not merely driven by economic imperatives but is also motivated by a conservative agenda designed to capture and constrain the critical thinking promoted by liberal arts education so as to diminish the democratizing influence of universities in societies. Referring to the rise of a new era of ‘academic capitalism’, likewise Bousquet (2008) has attempted to track the implications of the neoliberalisation of the university on the working conditions and practices of academics, lamenting the growing casualisation of the workforce and the repressing of academic remuneration which has resulted. Meanwhile and with specific respect to the humanities, Donoghue, (2008) has related the commodification of the university to the steady demise of the tenured professor and has raised questions as to the status of teaching and learning in times when job security bears on the educator. Tuchman (2009) in turn points to the ways in which as a consequence of behaving like a business some universities are increasingly governing themselves and running themselves precisely like a business. Molesworth et al. (2010) chart the new types of research, teaching, and administrative priorities and regimes which are emerging as universities jockey for position in the market for ‘consumers’. Most recently Giroux (2014) has reflected critically upon neoliberalism’s war on higher education and has sought to galvanise public intellectuals to fight in and against the neoliberal university.

What impact might the rise of the neoliberal university have on the PhD degree? A market model

may broaden recruitment by increasing the number of international high fee paying students registering for programs. But this trend should not be construed as an exercise in widening access; as noted above it might simply serve to produce new kinds of elite communities and to drain talent from the Global South. In addition greater corporate funding for PhD projects will inevitably lead to more emphases being placed upon ‘professional ready’ applicants capable of interfacing with private stakeholders. In the market model it will be the paymasters who decide what is and is not appropriate training. Greater corporate sponsorship of research is likely to lead to more vocational, skills based, and technical training, at the expense of critical reflection or public advocacy training. The market model is less likely to support students through the PhD process unless such support is needed to meet programs’ commercial ambitions. The market may bring greater discipline to the performance of the ‘brand’ but it might also revive a survival of the fittest tradition. In addition, by prioritizing the quantity of students (and fees) signing up for programs the market model may encourage faculty to take on even more PhD supervision responsibility, thereby diluting the time available to each new recruit. Finally the market model is likely to improve professional training and, through the casualisation of academic labour, will ironically lead to more teaching opportunities for students. But casualisation will also lead to an increased exploitation of students and overly long transition periods from PhD completion to stable employment bringing more uncertainty and stress to graduating and graduated students.

With a view to taking stock of, clarifying thinking around, and progressing debate beyond, existing critical interrogations of the merits and demerits of the ‘neoliberalised’ or ‘marketised’ or ‘corporate university’ it is useful to dwell on Burawoy’s recent writings on what he terms the ‘crises of the university’. According to Burawoy (2011), whilst important exceptions exist, the golden age where universities enjoyed autonomy and could define their own sense of mission have gone. Universities have become instruments to be put to use by different stakeholders; a means to an end and not an end in themselves. Burawoy refuses to lament this instrumentalisation of the university; the ivory tower he contends was an untenable model in the first instance. Moreover becoming a means to an end is not necessarily an



**Table 1** Burawoy's typology of university models

Type of knowledge/ type of audience	Academic audience	Extra academic audience
Instrumental knowledge	Professional Universities led by this quadrant are driven towards a <i>Regulatory Model</i>	Policy Universities led by this quadrant are driven towards a <i>Market Model</i>
	Potential pathology: public administration structures academic direction and not vice versa	Potential pathology: client needs structure policy approaches at the expense of academic advocacy
Reflexive knowledge	Critical Universities led by this quadrant are driven towards a <i>Critical Engagement Model</i>	Public Universities led by this quadrant are driven towards a <i>Deliberative Democracy Model</i>
	Potential pathology: Disciplinary competencies are subordinated by interdisciplinary critical approaches	Potential pathology: Universities become captured by the vested interests of activists, advocates, and agitators

end in itself. For Burawoy the key problem emerging today is not that universities are having to demonstrate their worth to external stakeholders but that they are becoming beholden to narrow sectional interests. The university is in crises because it is being captured by a restricted range of agendas and as a consequence its sense of mission is being appropriated, warped and impoverished (see also Collini 2012).

Reflecting the priority given to different intellectual missions and forms of knowledge creation and dissemination, according to Burawoy four models of the university might conceivably exist (see Table 1). A Regulatory Model emerges when universities seek to bring formal academic disciplines under the governance of a public administration culture. A Market Model surfaces when universities come to view knowledge as a commodity and regard themselves as corporations competing in a global education market place. A Critical Engagement Model exists when Universities come to view themselves as independent commentators on the structures and root values and ideologies which might guide societies. Finally, a

Deliberative Democracy model becomes preminent when universities define their role to be the opening up of public conversations on the grand societal challenges of the day and stimulants of an active public realm. Each would clearly frame the status, mission, and structure, of PhD programs differently.

Burawoy advises an 'everything in moderation' approach; a healthy university is one in which each of these models is able to make its case and through local transparent, vigorous, and agonistic debate a particular balance is struck. Each model has merits and demerits. Weaknesses are best tempered and strengths rendered more effective if each model is brought into a conversation with the others in particular institutional settings. Burawoy terms such an ideal typical institutional *public university*. Alas Burawoy sees little evidence of the existence of the public university today. In many countries the higher education system is being transformed in ways which are systematically promoting some and denigrating other types of activity, teaching, research and knowledge. According to Burawoy, universities are now being reshaped by two key drivers; commodification and regulation. The result is an unhealthy valorisation of the Regulatory and Market models and a dismissal (and indeed penalization) of those who endorse the Critical Engagement and Deliberative Democracy models. As a consequence, a genuine agonistic debate on the future of all academic programs, including PhD programs, is currently lacking (de Sousa Santos 2006).

### A series of interventions

A total of seventeen short papers or interventions follow. It would do a disservice to the collection to impose an artificial categorization on these contributions. Indeed many papers roam across a range of themes and concerns. Nevertheless to provide some guidance to the reader we might say that the collection traverses the debates introduced in the two sections above in three ways.

First, some papers place a particular emphasis upon ongoing critiques of PhD programs and document and comment upon innovations designed to improve PhD programs in geography. John Adams focuses upon measures to improve completion rates and improve graduate career chances. Tim Hawthorne and David Fyfe emphasize the value of student-led professional

development efforts and the ways in which such efforts can help to transform department culture as well as prepare students for their future professional roles. Elizabeth Rudd and Maresi Nerad review survey evidence charting the attitudes of PhD students concerning the career training they received as part of their programs. Michael Solem and Jan Monk briefly outline the intent and some of the outcomes of the Association of American Geographer's EDGE project aimed at improving graduate education in the US. Jamie Peck reflects on the value of promoting collaborative ventures between graduate programs in geography such as the successful Summer Institute in Economic Geography and Horizons in Human Geography projects. Elaine Burroughs, Jackie McGloughlin, and Adrienne Hobbs, in reporting on student reception of the new Graduate Research Education Programme at the National University of Ireland Maynooth, draw attention to the difficulties of changing doctoral staff and student cultures. Nick Hopwood and Lynn McAlpine reflect on the lessons geographers can gain from Oxford University's CETL project, the Centre for Excellence in Preparing for Academic Practice both in terms of research and practice. Finally, Chris Golde, drawing upon her extensive research on doctoral education, indicates key paths for reform.

Secondly, other papers pay particular attention to neoliberal reform within the higher education sector and the impact these reforms might have on the PhD degree, and the role of PhD programs in supporting or resisting neoliberalisation. Harald Bauder makes an interesting case that by inducting students in 'unhealthy' working practices PhD programs might unwittingly be preparing students to work in the increasingly neoliberalised labour markets which prevail in universities. Meanwhile, Lawrence Berg makes a forceful case that whilst reform may be necessary, the risks of exposing programs to critical review at this historical moment, given prevailing political and economic trends, may be too great. Patricia Wood places the PhD 'comps' under critical review and, by ruminating upon the tactics which might be necessary to help students enter the neoliberalised labour markets of the present, exposes the weaknesses of both existing practice and the limited opportunity in the present context of implementing best practice. Finally, Li and Yu place under review the current emphases placed upon capturing international students and reflect upon the challenges which this strategy poses.

Finally, a number of other papers bring together both sets of discussion and profile the current status of PhD programs within particular national systems. Rob Kitchin provides a brief history of changes to the PhD degree in the Irish context, noting the rising importance of interdisciplinary and inter-institutional training in the context of a small island higher education sector. Audrey Kobayashi meanwhile examines the health of PhD programs in the Canadian context, and reflects upon the scale, meaning, and impact of recent trends in enrolment. Susan Roberts provides a broad overview of PhD programs across the United States, and reflects upon recruitment practices, training programs, and career preparation. Maano Ramutsindela likewise charts recent developments in the PhD degree in the context of the changing face of higher education in South Africa. Finally, Richard le Heron et al. examine recent transformations in the PhD degree in New Zealand.

Burawoy (2011) concludes that notwithstanding the sense of cynicism, apathy, and dejection which debilitate some communities within the higher education sector today, the university needs to be reclaimed from prevailing forces and in this reclamation the articulation of a new public mission for universities must be given priority. Only if all four models (Regulatory Model, Market Model, Critical Engagement Model and Deliberative Democracy model) are brought into agonistic dialogue and pathologies inherent in each are resisted will the ideal of the Public University be revived. If Burawoy is correct, the fate of the PhD degree will be best discussed within the confines of the Public University. Here, within particular HEI institutions, a vibrant and agonistic debate will permit the best of each of the four models to be brought to the fore and the worst of each tempered. But the fight for the Public University is in its infancy. In the interim we hope then that this Special Issue might contribute to the creation of a public realm worthy enough to support debate on reform of the highest degree the academy awards.

## References

- Åkerlind, G., & McAlpine, L. (2009). Academic practice...how is it changing? What are the implications for preparing research students and research staff as future academics? *International Journal for Researcher Development*, 1(1), 4–9.



- Babbit, V., Rudd, E., Morrison, E., Picciano, J., & Nerad, M. (2008). *Careers of geography PhDs: Findings from social science PhDs—five + years out*. Seattle: University of Washington, Center for Innovation and Research in Graduate Education.
- Bok, D. (2003). *Universities in the marketplace*. Princeton, NJ: Princeton University Press.
- Boud, D., & Lee, A. (Eds.). (2009). *Changing practices of doctoral education*. London: Routledge.
- Bousquet, M. (2008). *How the university works: Higher education and the low wage nation*. New York: New York University Press.
- Breneman, D. W., Pusser, B., & Turner, S. (Eds.). (2006). *Earnings from learning: The rise of for profit universities*. New York: State University of New York Press.
- Breneman, D. W., Zumeta, W., Callan, P. M., & Finney, J. E. (2012). *Financing American Higher Education in the era of globalization*. Cambridge: Harvard Education Press.
- Brown, S., Clark, P., & Bucklow, C. (2002). Professionalizing teaching: Enhancing the status of teaching, improving the experience of learning and supporting innovation in higher education. *Journal of Geography in Higher Education*, 26(2), 159–168.
- Burawoy, M. (2011). Redefining the Public University: Developing an analytical framework. Available at <http://publicsphere.ssrc.org/burawoy-redefining-the-public-university/>. Accessed July 10th 2014.
- Castree, N., & Sparke, M. (2000). Professional geography and the corporatization of the university: Experiences, evaluations, and engagements. *Antipode*, 32(3), 222–229.
- Castree, N. (2005). Whose geography? Education as politics. In N. Castree, A. Rogers, & D. Sherman (Eds.), *Questioning geography* (pp. 294–307). Oxford: Blackwell.
- Clark, G., Blumhof, J., Healey, M., Gravestock, P., Jenkins, A., Healy, M., et al. (2002). A national discipline-based workshop for new lecturers in higher education. *Active Learning in Higher Education*, 3(2), 128–144.
- Collini, S. (2012). *What are universities for?* New York: Penguin.
- Crang, M. (2007). Flexible and fixed times working in the academy. *Environment and Planning A*, 39(3), 509–514.
- de Sousa Santos, B. (2006). The university in the 21st. Century: Toward a democratic and emancipatory university reform. In R. Rhoads & C. Torres (Eds.), *The university, state, and market* (pp. 60–100). Stanford: University of Stanford Press.
- Demeritt, D. (2004). Research training and the end(s) of the Ph.D. *Geoforum*, 35(6), 655–660.
- Donoghue, F. (2008). *The last professors: The corporate university and the fate of the humanities*. New York: Fordham University Press.
- Dowling, R. (2008). Geographies of identity: Labouring in the ‘neoliberal’ university. *Progress in Human Geography*, 32(6), 812–820.
- Enhancing Departments and Graduate Education in Geography (EDGE), Association of American Geographers. (2009). Retrieved 4 July 2014 from <http://www.aag.org/EDGE/index.cfm>.
- Erickson, R. A. (2012). Geography and the changing landscape of higher education. *Journal of Geography in Higher Education*, 36(1), 9–24.
- Fagen, A., & Wells, K. (2004). The 2000 national doctoral program survey: An online study of students voices. In D. H. Wulff & A. E. Austin (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty* (pp. 74–91). San Francisco: Jossey-Bass.
- Foote, K. E., Bednarz, S. W., Monk, J. J., Solem, M. N., & Stoltman, J. (2012). Rethinking postgraduate geography education in the USA: Issues and concerns. *Journal of Geography in Higher Education*, 36(1), 57–64.
- Foote, K. E., & Solem, M. N. (2009). Toward better mentoring for early career faculty: Results of a study of U.S. geographers. *International Journal for Academic Development*, 14(1), 47–58.
- Giroux, H. (2014). *Neoliberalism’s war on the university*. Toronto: Between the Lines.
- Golde, C. M., & Dore, T. M. (2001). *At cross purposes: What the experiences of doctoral students reveal about doctoral education*. Philadelphia, PA: The Pew Charitable Trusts.
- Golde, C. M., & Walker, G. E. (Eds.). (2009). *Envisioning the future of doctoral education: Preparing stewards of the discipline*. San Francisco: Jossey-Bass.
- Healey, M., & Jenkins, A. (2003). Discipline-based educational development. In H. Eggins & R. Macdonald (Eds.), *The scholarship of academic development* (pp. 47–57). Buckingham, UK: Open University Press.
- Jenkins, A. (1996). Discipline-based educational development. *International Journal for Academic Development*, 1(1), 50–62.
- Kerr, C. (2006). *The uses of the university*. Cambridge, Mass: Harvard University Press.
- Liu, L. Y. (2006). On being ‘hen’s teeth’: Interdisciplinary practices for women of color in geography. *Gender, Place and Culture*, 13(1), 39–48.
- Lovitts, B. E. (2001). *Leaving the ivory tower: The causes and consequences of departure from doctoral study*. Lanham, MD: Rowman and Littlefield.
- Lovitts, B. E. (2007). *Making the implicit explicit: Creating performance expectations for the dissertation*. Sterling, VA: Stylus.
- Maki, P. L., & Borkowski, N. A. (Eds.). (2006). *The assessment of doctoral education: Emerging criteria and new models for improving outcomes*. Sterling, VA: Stylus.
- Mamdani, M. (2007). *Scholars in the marketplace*. Dakar, Senegal: Council for the Development of Social Science Research in Africa.
- Mirowski, P. (2011). *Science-mart: Privatizing American Science*. Cambridge, Mass: Harvard University Press.
- Molesworth, M., Scullion, R., & Nixon, E. (2010). *The marketisation of higher education and the student as consumer*. London: Routledge.
- Monk, J. (2004). Women, gender, and the histories of American geography. *Annals of the Association of American Geographers*, 94(1), 1–22.
- Monk, J., Droogleever Fortuijn, J., & Raleigh, C. (2004). The representation of women in academic geography: Contexts, climate and curricula. *Journal of Geography in Higher Education*, 28(1), 83–90.
- Monk, J., Foote, K. E., & Schlemper, M. B. (2012). Graduate education in U.S. geography: Students’ career aspirations and faculty perspectives. *Annals of the Association of American Geographers*, 102(6), 1432–1449.

- Nerad, M. (2004). The PhD in the US: Criticism, facts and remedies. *Higher Education Policy*, 17(2), 183–199.
- Nerad, M., Aanerud, R., & Cerny, J. (2004). So you want to become a professor! Lessons from the *PhDs—ten years later* study. In D. H. Wulff & A. E. Austin (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty* (pp. 137–158). San Francisco: Jossey-Bass.
- Nerad, M., & Cerny, J. (1999). Postdoctoral patterns, career advancements, and problems. *Science*, 285(5433), 1533–1535.
- Nerad, M., & Evans, B. (2014). *Globalisation and its impacts on the quality of PhD education: Forces and forms in doctoral education*. Rotterdam: Sense Publications.
- Nerad, M., Rudd, E., Morrison, E., & Picciano, J. (2007). *Social science PhDs—five + years out: A national survey of PhDs in six fields—Highlights report*. Seattle: University of Washington, Center for Innovation and Research on Graduate Education.
- Newfield, C. (2008a). *The unmaking of the public university: The forty-year assault on the middle class*. Cambridge, Mass: Harvard University Press.
- Newfield, C. (2008b). *Unmaking the public university: The forty year assault on the middle class*. Cambridge: Harvard University Press.
- Peck, J., & Olds, K. (2007). ‘Report: The summer institute in economic geography. *Economic Geography*, 83(3), 309–318.
- Pruitt-Logan, A. S., & Gaff, J. G. (2004). Preparing future faculty: Changing the culture of doctoral education. In D. H. Wulff & A. E. Austin (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty* (pp. 177–193). San Francisco: Jossey-Bass.
- Pulido, L. (2002). Reflections on a white discipline. *Professional Geographer*, 54(1), 42–49.
- Purcell, M. (2007). Skilled, cheap, and desperate. *Antipode*, 39(1), 121–143.
- Rhoten, D., & Calhoun, C. (Eds.). (2011). *Knowledge matters: The public mission of the research university*. New York: Columbia University, New York Press.
- Sanders, R. (2006). Social justice and women of color in geography: Philosophical musings, trying again. *Gender, Place and Culture*, 13(1), 49–55.
- Schlemper, M. B., & Monk, J. (2011). Discourses on ‘diversity’: Perspectives from graduate programs in geography in the United States. *Journal of Geography in Higher Education*, 35(1), 23–46.
- Slaughter, S., & Rhoades, G. (2004). *Academic capitalism and the new economy*. Baltimore, MD: Johns Hopkins University Press.
- Solem, M. N., Cheung, I., & Schlemper, M. B. (2008). Skills in professional geography: An assessment of workforce needs and expectations. *Professional Geographer*, 60(3), 356–373.
- Solem, M. N., & Foote, K. E. (2004). Concerns, attitudes, and abilities of early career geography faculty. *Annals of the Association of American Geographers*, 94(4), 889–912.
- Solem, M. N., & Foote, K. E. (2006). Concerns, attitudes, and abilities of early career geography faculty: Research context and future Directions. *Journal of Geography in Higher Education*, 30(2), 195–198.
- Solem, M. N., & Foote, K. E. (2009). Enhancing departments and graduate education in geography: A disciplinary project in professional development. *International Journal for Researcher Development*, 1(1), 11–26.
- Solem, M. N., Foote, K. E., & Monk, J. (2009). *Aspiring academics: A resource book for graduate students and early career faculty*. Upper Saddle River, NJ: Prentice-Hall.
- Solem, M. N., Foote, K. E., & Monk, J. (Eds.). (2013a). *Practicing geography: Careers for enhancing society and the environment*. Upper Saddle River, NJ: Pearson.
- Solem, M. N., Hopwood, N., & Schlemper, M. B. (2011). Experiencing graduate school: A comparative analysis of students in geography programs. *The Professional Geographer*, 63(1), 1–17.
- Solem, M. N., Kollasch, A., & Lee, J. (2013b). Career goals, pathways and competencies of geography graduate students in the USA. *Journal of Geography in Higher Education*, 37(1), 92–116.
- Solís, P., & Miyares, I. M. (2014). Introduction: Rethinking practices for enhancing diversity in the discipline. *The Professional Geographer*, 66(2), 169–172.
- Tuchman, G. (2009). *Wannabe U: Inside the corporate university*. Chicago: University of Chicago Press.
- Walker, G. E., Golde, C. M., Jones, L., Bueschel, A. C., & Hutchings, P. (2008). *The formation of scholars: Rethinking doctoral education for the twenty-first century*. San Francisco: Jossey-Bass.
- Washburn, J. (2006). *University Inc: The corporate corruption of higher education*. London: Basic Books.