The Canada Research Chairs Program and Social Science Reward Structures

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Les auteurs analysent les comptes rendus des publications et des citations des Chaires de recherche du Canada en sociologie, en science politique et en économie au cours des cinq années pendant lesquelles le programme s’est poursuivi. Ils les comparent à des échantillons aléatoires de comptes rendus de publications et de citations qui ne sont pas le fruit des Chaires de recherche du Canada dans leur discipline respective pour tester leur qualité professionnelle. Les données et les analyses démontrent que les membres de ces Chaires de recherche constituent une population hétérogène ayant peu de « vedettes » authentiques et dont plusieurs personnes présentent des comptes rendus de publications et de citations semblables ou inférieurs à ceux de leurs collègues qui ne sont pas membres des Chaires de recherche du Canada. Les auteurs exploitent la monotonie institutionnelle, l’appropriation institutionnelle ainsi que la périphéricalité et l’organisation disciplinaire canadiennes en tant qu’explications possibles de ces résultats.

This article analyzes the publishing and citation records of Canada Research Chairs (CRCs) in sociology, political science, and economics over the first 5 years of the program. Publication and citation records of CRCs are compared with random samples of non-CRCs in their respective disciplines as empirical tests of professional strength. The data and analyses suggest that CRCs are a heterogeneous population with a few obvious “stars” and many with publishing and citation records similar or inferior to their non-CRC peers. Institutional flatness, institutional appropriation, and Canadian peripherality and disciplinary organization are explored as possible explanations for these results.

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FOLLOWING A DECADE OF SUBSTANTIAL FUNDING cutbacks in universities throughout the 1990s, the Canadian government introduced the Canada Research Chairs (CRCs) program in 1999. After being fully implemented in 2006, the program endows 2000 research chairs in Canadian universities (Polster 2002:277). Considering the preceding decade of financial austerity in Canadian postsecondary education, the $900 million program was a significant investment in research and postsecondary education. Further, the CRC program was heralded as a step forward to combating a perceived “brain drain” of top Canadian faculty to other countries, looming problems of faculty attrition due to retirement, and as evidence of fulfilling a vow made by the federal government to become a “top five” country in research and development (Toronto Star, January 10, 2004:F4). Significantly, the CRC program represents a substantial infusion of government money and influence into the research practices, graduate programs, and status hierarchies of Canadian academics.

Merton’s (1973) sociology of science posits that sciences are shaped by their reward structures. Thus, the CRC program provides a vivid case study to examine the political economy of contemporary postsecondary education in Canada, the social construction and organization of knowledge in universities and disciplines, in addition to the systems of scientific rewards and reputations in different disciplines. Given the institutional resources at stake and potential consequences of major changes in the reward structures of academics, understanding the dynamics reflected within and perpetuated by the CRC program is important for understanding the present and the future of the liberal arts and higher education in Canada.

Since its inception, the CRC program has been the subject of considerable controversy. Specifically, the CRC program has been criticized inside and outside of academia for allegedly neglecting questions of gender equity (University Affairs January 2004b; Drakich and Grant 2004), eroding academic freedom (Polster 2002), breaching egalitarian values in Canadian postsecondary education (Polster 2003), harboring biases toward the physical, medical, and natural sciences (Grant with Turk 2002:263), and as an alleged example of ivory tower frivolity and largesse squandering public funds (Financial Post 2002:FP11; University Affairs November 2004a). The critiques of gender equity perpetuated an independent review of the program in 2004, commissioned by the CRC Secretariat (http://www.chairs.gc.ca/web/about/publications/gender%5Fe.pdf). These issues warrant further study and debate, but are extraneous to the analyses in this article. In this article, we put forth empirical analyses of how the CRC program has interacted with three social sciences: sociology, political science, and economics. Such an examination of the CRC program will help illuminate the state of professional control over reward structures within the program, and what, if any, differences within the program exist between the three disciplines in this regard.
A major reason why the CRC program has the potential to be influential on the future of academic disciplines and career trajectories of individual scholars in Canada is because, on average, CRCs enjoy significantly greater access to teaching release, research support, infrastructure, and funds for graduate students (Canadian Association of University Teachers [CAUT] 2005; R. A. Malatest and Associates Ltd 2005). In addition to the symbolic reward of being a CRC, these endowments will help CRCs play a prominent role in shaping the recruitment patterns, scholarly practices, publishing patterns, and training of scholars. It is also timely and worthwhile to examine the CRC program empirically in its earliest years. In this way, analyses can be conducted without being overly skewed by the Matthew effect. The Matthew effect was coined by Merton (1968) to label the self-fulfilling prophecy, where those who enjoy initial resources and reputations in science, and tend to use those advantages to accrue further advantages and status in the future, attain cumulative advantage in a scientific hierarchy. While a few of the first CRCs (announced in 2001) may have begun to publish the fruits of their endowed chair by August 2004 (the cutoff point for publications and citations in the empirical study in this paper), this should only bolster the records of CRCs marginally, if at all.

The empirical section of the article compares the population of CRCs in three disciplines to a random sample of non-CRC Canadian academics in a variety of ways. Because of linguistic barriers and the differences between the Anglo-American and French traditions of academic disciplines and organizational forms and the distinctiveness of Québec, our analyses will focus only on CRCs in primarily Anglophone Canadian universities. With this caveat, our data and analyses consist of (1) a comparison of the Ph.D. background of sociology CRCs relative to other major core social sciences and liberal arts and (2) comparative publication and citation analyses of CRCs vis-à-vis random samples of non-CRC scholars in economics, sociology, and political science departments throughout Canada in core journals of these respective fields. These data allow for the comparison of the scholarly records of CRCs to non-CRCs, and to gauge possible differences in CRC allocation between disciplines. Also, while imperfect, citation data also help delineate which papers and scholars are contributing good ideas (per Burt 2004), namely those that are noticed, impactful or valued, to the scholarly community.

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1. However, the distribution of CRC funds is an idiosyncratic and negotiated process that can vary significantly between different chairs and institutional contexts. At the very least, a CRC receives a symbolic scholarly reward, and as the aforementioned reports suggest, greater resources than their nonendowed colleagues.

2. This includes Québec’s primarily Anglophone universities (i.e., Bishop’s, Concordia, McGill).

3. As implied, citation analysis has been a contentious method in science studies. Critics of citation analysis argue that citations are used for a plethora of reasons, many of which depart from ideal or universalist Mertonian norms of science (see MacRoberts and MacRoberts 1986; Latour 1987). For example, citations
More broadly, this article endeavors to speak beyond the various polemics concerning the CRC program by providing empirical and theoretical insight to better inform debate at public, policy, and professional levels. This article does not intend to pass judgment on the worthiness or meritoriousness of any academic or institutional hierarchies, nor the general quality or social utility of the academic work of CRCs or the CRC program in general. Instead, the paper focuses on the interplay between different academic and reputational organizations and the Canadian government’s largest and most ambitious institutional solution to funding universities and research, combating the “brain-drain” in academia (be it apocryphal or not) and remaining competitive in the globalized “knowledge economy.”

Since most Canadian universities generally do not have the endowments to establish distinguished research chairs on their own (at least on an internationally competitive scale with heavily endowed private and flagship public universities throughout the world), it follows that the state would take responsibility for such a program. As Polster (2002:277) observes:

Universities’ overall share of research chairs is related to their past success in granting council competitions. Universities’ applications for individual chairs are evaluated by peer review panels who take each institution’s strategic plan into account in their decision making (Tri-Council and CFI Secretariat 2000).

Accordingly, the state manages to exert significant influence over CRCs—the most comprehensive centralized reward structure for Canadian scholars. In this context, where universities have high resource dependence on the state, the mechanisms through which this operates are quite explicit. The number of CRCs that a university receives is proportional to past funding successes. The political processes inherent in the federal and provincial governmental systems in Canada also function to disperse CRCs somewhat evenly to universities across the country, reinforcing a “flat” system devoid of strong elites in a discipline—criticisms of the program for concentrating 60 percent of the CRCs in 10 universities (Grant with Turk 2002:262) notwithstanding.

In the context of these incentive structures, universities construct their own strategic plans, which they then submit to the relevant funding agencies. While the role(s) played by specific disciplines and departments in

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4. Pfeffer and Salancik’s (1978) resource dependence theory posits that organizations are much more likely to accede to the interests or demands of others upon whom they are dependent for resources.

5. Brint’s (2005) interviews with university leaders across the United States suggest the increasing proliferation of strategic niche marketing in educational programs and offering in contemporary universities. This may be indicative of an influx of ideas, frames, and rhetoric from business strategy (as exemplified by Porter 1996) into the governance of higher education.
influencing CRC allocations can vary contextually, the structure of the CRC program leaves the possibility open that allocations may not necessarily be guided by disciplinary interests. From a professional standpoint, this is particularly important, given the significance of control over hiring, merit, and strategy for the prospects and empowerment of a professional group (Freidson 1970; Abbott 1988; Weeden 2002). Brint (1994) suggests that professions define themselves through control over hiring and credentialing mechanisms that these groups control with autonomy. Analogously, Whitley (2000 [1984]:220) defined reputation autonomy as “the degree of reputational control over competence and performance standards in scientific research[.]” The CRC model appears to at least somewhat infringe upon these professional ideals of autonomy and control, as university administrators (via strategic plans mandated by the CRC program) and the state exert various degrees of influence on the structure and allocation of scientific rewards. The overall influence of administrators relative to scientific and disciplinary interests in shaping allocations within the CRC program has also raised contentious issues about the place of the peer-review process in Canadian universities.6 This leads to the hypothesis that CRC appointments may not always adhere to mainstream standards of merit in individual disciplines, especially in smaller and more peripheral7 universities. Further, disciplines with relatively lower status and intellectual consensus (such as sociology) presumably enjoy less professional closure and control, and the concomitant benefits that come with professional power and eminence. Thus, lower status disciplines may be relatively more vulnerable to appropriation from nondisciplinary interests and ideas.

In summary, the CRC program and the opportunities for research and employment it provides are influenced by state and political imperatives, in addition to the preferences and choices of university administrators. This is in contrast to Stinchcombe’s (1994) ideal type of academic disciplines, Whitley’s (2000 [1984]) notion of reputational autonomy, and what the sociology of professions literature (Abbott 1988; Brint 1994) identifies as professional strength, which is predicated on the ability to define and control standards of merit and procedures for allocation of rewards. Academic disciplines function somewhat like labor unions, requiring their own work conditions and interests to be adhered to, thus creating labor “stickiness” that is not necessarily responsive to political, commercial, funding, and trend-based opportunities that administrators and/or the state may want to exploit. The CRC program appears to tend to shift the relative power balance toward

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6. In a spirited letter to the Financial Post (FP 2002:11) in response to criticisms of the CRC peer-review process, CRC Executive Director Rene Durocher contended that despite allegations of cronyism, the CRC peer-review process is indeed “rigorous.”

7. The term peripheral, which is used throughout the article, is used in a networks context, as most scholarly communities tend to organize in core–periphery structures (Mullins et al. 1977; Barabasi and Albert 1999). It is not intended with any normative connotations. Incidentally, Dogan and Puhre (1990) emphasized the unique ability of peripheral actors and social structures to be innovative.
university administrators and the state, and away from the scientific and disciplinary interests discussed by Stinchcombe and Whitley. The more outside bodies determine the status hierarchy within departments, the less reputational autonomy disciplines have, thus undermining quality control enforced by experts (Stinchcombe 1994; Whitley 2000 [1984]; Moody 2004b) and the overall strength of the profession (Freidson 1970; Abbott 1988; Brint 1994; Weeden 2002).

**EMPIRICAL ANALYSES OF THE CRC PROGRAM: CITATIONS AND PUBLICATIONS**

From a qualitative standpoint, the official titles of CRCs are symbolically and rhetorically significant, if they are not also relevant to influencing research priorities. Moody (2005b) cites Bourdieu’s (1999:242) statement that “[e]very field is the site of a more or less openly declared struggle for the definition of the legitimate principles of division of the field” as a theoretical explanation for why the ability to define and control linguistic definitions of an academic discipline is so powerful and important. As of November 2006, 7 out of 19 (37 percent) sociology CRCs in Anglophone universities have “health” or “wellness” in their CRC description. Another five are focused on social justice. These titles should be considered in the context of the fact that applied social justice work and medical sociology are relatively small parts of the sociological milieu (see Ennis 1992; Moody 2005a), and are thus overrepresented among CRCs. Even among the few sociology CRCs outside of those substantive areas, no CRC title mentions “sociology,” or any core area of the discipline (e.g., theory, methods), and are instead focused on topical manners. In contrast, most CRCs in economics explicitly mention “economics” in their titles, and are mostly broadly and tend to be canonically (as opposed to topically) defined, to reflect core theoretical areas of study in the discipline (e.g., microeconomics; economic theory) as opposed to singular topics. This may be due to the fact that economics enjoys greater public visibility, cachet, and institutional status than sociology (see Ronan-Tas 2005).

Another potential explanation is ensconced in Abbott’s (1988) concept of professional treatment and Fuchs’ (1993) theory of scientific change. Fuchs argued that competition for scientific eminence tends to be most intense at the core research frontiers of a given field. Given the uncertainty associated with frontier research (in contrast to the more mundane application of normal science and consensus that emerged from successful frontier research diffusing), funding of such endeavors is based upon professional deference to core scholars in that profession, based on the belief that their treatment (see Abbott 1988:44–48), which bridges between theory and

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8. This includes four sociology CRCs who have been removed from the CRC Web site as of November 2006 due to their chairs expiring, or if they resigned their positions.
practice, is legitimate. This appears to especially be the case where CRCs in economics are likely to be funded on the basis of their broad paradigm. In contrast, sociology does not possess high-consensus paradigms or popular treatments for the analysis of public issues to the extent that economics does. Thus, funding is more likely to be tethered to specific problems and issues. While CRC allocations in various disciplines fluctuate as terms expire and new chairs are named, it may be worth noting that among Anglophone scholars, as of September 2007, sociology has fewer CRCs overall and a lower proportion of more lucrative Tier I CRCs (5/14 are Tier I, or 37 percent) than economics (11/19, 58 percent) or political science (12/25, 48 percent). However, in some scenarios, a more flexible discipline such as sociology may have some advantages for attracting CRC investment. Weaker disciplines may provide administrators a relative “luxury” of casting disciplinary fetters and responsibilities aside, which more readily enables the appointments of scholars conducting politically and/or administratively influenced policy-oriented research.

Our research empirically examines the relationship between the CRC program and the social sciences in Canada in various ways. First, we looked at the percentage of CRCs who held doctorates in the discipline in which their CRC was awarded. Presumably, the most open or disintegrated disciplines will have a higher percentage of CRCs appointed without training in their field, while the most cohesive and institutionally strong disciplines will enact more control over the disciplinary training of CRCs. We examined the data on this question in history, sociology, political science, philosophy, English literature, economics, and anthropology.

Secondly, we examined the publication and citation records of CRCs in sociology, political science, and economics to assess whether there is a pattern to the reputational standing of the appointments in their disciplines when compared with one another. The assumption here is that a cohesive and strong discipline would be conducive to having CRCs appointed in its field to have strong reputations in the core of its discipline. In a weaker or more disintegrated discipline, one would find the appointment of a higher proportion of CRCs without strong reputations in the discipline. The citation records of CRCs in sociology, political science, and economics in the top Canadian, top 3, and top 20 journals in their field were examined according to the most recent prominently published rankings of journals in these three fields (see Appendix A).

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9. For each Tier I chair, the relevant university receives $1.4 million over 7 years, and for each Tier II chair, $500,000 over 5 years (see http://chairs.gc.ca/web/program/index_e.asp). Of note is that how that money gets used and applied varies according to university and context, further bolstering the power of university administrators in regard to how the program and resources get implemented.

10. It is worth noting that philosophy also appears to be facing the issue of the appropriation of disciplinary interests within the CRC program. Despite its longevity and cultural capital in the liberal arts and universities, the majority of philosophy chairs are earmarked for applied health ethics work, or applied computer science work via the work of logicians.

11. Moody’s (2005a) network and citation analyses of economics, political science, and sociology confirm that most, if not all, of the journals in these rankings are the most central and/or widely cited in their
CRCs in sociology, political science, and economics in the top journals in their respective fields, both in Canada and internationally using the same disciplinary journal rankings as used in our citation analysis. While we believe citation analysis has the advantage of providing a measure for the disciplinary influence of book writing scholars,\textsuperscript{12} we also feel it is reasonable to look at the publishing records of CRC faculty in journals in their respective disciplines as a measure of the disciplinary strength and relevance of a scholar’s record. These benchmarks were chosen to represent the Canadian and international cores of each of the disciplines, while casting a reasonably wide net.

**DATA AND METHODS**

Data on the CRCs were firstly gleaned from the sociology, political science, and economics categories on the official Canada Research Chairs Web site (http://chairs.gc.ca/). Next, we downloaded publicly available curriculum vitae from the Internet and solicited CVs from CRCs. We used these sources to verify that the publication and citation analyses from Sociological Abstracts, EconLit, and the Web of Science were accurate. For the comparison “non-CRC” group, every scholar listed on an Anglophone sociology, economics, or political science department Web site at a Canadian university was given an identification number.\textsuperscript{13} This yielded a list of roughly 750 economists, 700 political scientists, and 650 sociologists.\textsuperscript{14} From these populations, random samples of 75 scholars in each discipline were amassed using a random number generator. A relatively large proportion of sociologists in the sample were unsuitable for analysis for reasons explicated in the preceding footnote; hence a second sample of 20 was used to raise the sample size up to 80, with 18 CRCs (98 total). Political science had a sample of 71 non-CRCs with 17 CRCs (88 total), while economics yielded a sample of 69, with 14 CRCs (83 total). Data on citation and publication records were then analyzed for all CRCs and scholars in the sample, based on the

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\textsuperscript{12} While we were able to analyze citation patterns of books, we were not able to include published books into our analyses of publication records. Since there is no ranking of printing presses, it would be impossible to separate the difference between quantity and quality. Obviously, we recognize that in contrast to the heavily article-based culture of economics, sociologists contribute to the scientific community through books and/or articles (Wolfe 1990). Regardless, we were able to include citations of books in articles into our analyses, so distinguished books that influenced future scholarly work will be recognized in our dependent variables. For a further discussion of some of these issues, see Clemens et al. (1995).

\textsuperscript{13} Academics from bilingual departments, such as at Laurentian University and the University of Ottawa, were omitted from the sample if their publication records suggested that efforts were split between publishing in French and English scientific communities.

\textsuperscript{14} These figures are likely somewhat inflated, especially for sociologists. In cases where the scholar’s employment status, linguistic orientation, or disciplinary affiliation was in doubt, the scholar was given a number, but excised from the sample if it was uncovered that they were not tenured or tenure-track, had more than 10 percent of their publications in a language other than English, or were an anthropologist in a joint sociology/anthropology department.
aforementioned rankings included in Appendix A. These records were then partitioned into the top 3, top 20, and top Canadian journals in the respective fields. Information on the “professional age” (i.e., time since receiving Ph.D.) of each academic in the CRC pool and non-CRC sample was gleaned from CVs and Dissertation Abstracts International. In a few cases where no such information could be uncovered, the year in which a scholar produced his/her first article was substituted. All publication and citation records are measured up until August 2004. This was also the cutoff date for determining whether or not a university had a doctoral program in each of the three disciplines.

**EMPIRICAL RESULTS**

As Tables 1–9 show, the vast majority of CRCs in most disciplines we sampled received their training in that discipline.

Sociology appears to deviate from its professional standards to the greatest extent, with 5 out of 17 (29 percent) of its CRCs receiving doctorates in disciplines other than sociology. With the exception of political science, virtually all CRC holders are trained in the discipline they hold their chair in. The disciplinary strength of history, English literature, economics, and political science is relatively strong, with over 90% of CRCs trained in their discipline. Sociology, on the other hand, has a lower percentage of CRCs trained in their discipline, highlighting the need for reforms in the social sciences.

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15. Unlike political science and economics, sociology has two main “national” journals in Canada. However, since the *Canadian Journal of Sociology* and the *Canadian Review of Sociology and Anthropology* publish roughly the same number of articles as the *Canadian Journal of Economics* and the *Canadian Journal of Political Science* do on their own, this should not be a big problem.

16. This includes some CRCs announced after this date. While it is important to incorporate them to increase the sample sizes in the analyses, their records were only recorded until August 2004 to remain consistent, and to help control potential Matthew effects (Merton 1968) enjoyed by earlier CRCs.

17. The scenario with departmental affiliation is similar. While most disciplines have an occasional CRC appointed or cross-appointed in a different department, this is likely not indicative of paradigmatic weakness (e.g., an economics scholar cross-appointed in a business school). In contrast, a very high percentage of sociologists hold cross-appointments, weakening the benefit the program holds for disciplinary consolidation in the field. It is also worth noting that we counted two sociologists whose positions were “halved” with another government agency as separate CRCs, and it could have been...
and economics (within the program, at the very least) is particularly
evident, as they did not see the appointment of a single CRC in these
disciplines without a Ph.D. in the field. Sociology appears to be the discipline
with the least professional closure, followed by political science, using
this indicator. Although the sample here is relatively small, the results
are consistent with McLaughlin’s (2006) analysis of data on differences
between faculty appointments in several Canadian economics, history,
political science, and sociology departments, which involved a much larger
sample.

Table 2

Mean Numbers of Publications and Citations in Various Disciplines (CRCs and Non-CRC Sample Combined)

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>sociology (N = 98)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publications in top 20 journals</td>
<td>.465</td>
<td>.837</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Publications in top 3 journals</td>
<td>.081</td>
<td>.340</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Publications in top Canadian journal</td>
<td>.909</td>
<td>1.830</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Total publications</td>
<td>1.455</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citations in top 20 journals</td>
<td>4.545</td>
<td>10.365</td>
<td>0</td>
<td>70</td>
</tr>
<tr>
<td>Citations in top 3 journals</td>
<td>1.657</td>
<td>4.623</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>Citations in top Canadian journal</td>
<td>3.667</td>
<td>11.106</td>
<td>0</td>
<td>78</td>
</tr>
<tr>
<td>Total citations</td>
<td>9.869</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>political science (N = 88)</td>
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<td></td>
</tr>
<tr>
<td>Publications in top 20 journals</td>
<td>.327</td>
<td>.859</td>
<td>0</td>
<td>4</td>
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<tr>
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<td>.041</td>
<td>.199</td>
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<td>1</td>
</tr>
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<td>Publications in top 2 Canadian journals</td>
<td>.459</td>
<td>1.132</td>
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<tr>
<td>Total publications</td>
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<td></td>
<td></td>
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</tr>
<tr>
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<td>6.676</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>Citations in top 3 journals</td>
<td>.837</td>
<td>7.868</td>
<td>0</td>
<td>9</td>
</tr>
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<td>Citations in top 2 Canadian journals</td>
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<td>1.951</td>
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<td>52</td>
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<td>Total citations</td>
<td>7.221</td>
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<td>economics (N = 83)</td>
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<tr>
<td>Publications in top 20 journals</td>
<td>2.690</td>
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<td>Total publications</td>
<td>4.081</td>
<td></td>
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</tr>
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<td>Total citations</td>
<td>19.598</td>
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equally credible to count them as “one” chair. The latter option would have made sociology appear more
disintegrated along most of our empirical indices, and worsened the performance of CRCs in sociology
and the pooled analyses that include sociology.
<table>
<thead>
<tr>
<th></th>
<th>Sociology</th>
<th></th>
<th>Political science</th>
<th></th>
<th>Economics</th>
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<tr>
<td></td>
<td>CRC</td>
<td>Non-CRC</td>
<td>CRC</td>
<td>Non-CRC</td>
<td>CRC</td>
<td>Non-CRC</td>
<td>CRC</td>
<td>Non-CRC</td>
</tr>
<tr>
<td>Publications in top 20 journals</td>
<td>.70 (.21)</td>
<td>.41 (.09)</td>
<td>.52 (.20)</td>
<td>.25 (.09)</td>
<td>5.56* (1.60)</td>
<td>1.94 (.52)</td>
<td>1.97 (.53)</td>
<td>.84 (.18)</td>
</tr>
<tr>
<td></td>
<td>.41 (.21)</td>
<td>.25 (.09)</td>
<td>.52 (.20)</td>
<td>.25 (.09)</td>
<td>5.56* (1.60)</td>
<td>1.94 (.52)</td>
<td>1.97 (.53)</td>
<td>.84 (.18)</td>
</tr>
<tr>
<td>Publications in top 3 journals</td>
<td>.2 (.12)</td>
<td>.05 (.03)</td>
<td>.07 (.05)</td>
<td>.03 (.02)</td>
<td>1.44* (.49)</td>
<td>.49 (.14)</td>
<td>.49* (.16)</td>
<td>.18 (.05)</td>
</tr>
<tr>
<td></td>
<td>.2 (.12)</td>
<td>.05 (.03)</td>
<td>.07 (.05)</td>
<td>.03 (.02)</td>
<td>1.44* (.49)</td>
<td>.49 (.14)</td>
<td>.49* (.16)</td>
<td>.18 (.05)</td>
</tr>
<tr>
<td>Publications in main</td>
<td>1.05 (.51)</td>
<td>.87 (.19)</td>
<td>.26 (.14)</td>
<td>.54* (.15)</td>
<td>.94 (.32)</td>
<td>.64 (.13)</td>
<td>.69 (.19)</td>
<td>.69 (.09)</td>
</tr>
<tr>
<td></td>
<td>1.05 (.51)</td>
<td>.87 (.19)</td>
<td>.26 (.14)</td>
<td>.54* (.15)</td>
<td>.94 (.32)</td>
<td>.64 (.13)</td>
<td>.69 (.19)</td>
<td>.69 (.09)</td>
</tr>
<tr>
<td>Citations in top 20 journals</td>
<td>8.60 (3.52)</td>
<td>3.52 (.86)</td>
<td>5.56* (1.60)</td>
<td>2.25 (.68)</td>
<td>43.33* (18.77)</td>
<td>7.09 (2.15)</td>
<td>16.95* (5.65)</td>
<td>4.23 (.79)</td>
</tr>
<tr>
<td></td>
<td>8.60 (3.52)</td>
<td>3.52 (.86)</td>
<td>5.56* (1.60)</td>
<td>2.25 (.68)</td>
<td>43.33* (18.77)</td>
<td>7.09 (2.15)</td>
<td>16.95* (5.65)</td>
<td>4.23 (.79)</td>
</tr>
<tr>
<td>Citations in top 3 journals</td>
<td>3.45 (1.82)</td>
<td>1.20 (.35)</td>
<td>1.37* (1.48)</td>
<td>.63 (.20)</td>
<td>7.67* (2.94)</td>
<td>1.42 (.41)</td>
<td>3.75** (1.04)</td>
<td>1.09 (.19)</td>
</tr>
<tr>
<td></td>
<td>3.45 (1.82)</td>
<td>1.20 (.35)</td>
<td>1.37* (1.48)</td>
<td>.63 (.20)</td>
<td>7.67* (2.94)</td>
<td>1.42 (.41)</td>
<td>3.75** (1.04)</td>
<td>1.09 (.19)</td>
</tr>
<tr>
<td>Citations in main</td>
<td>8.10 (4.48)</td>
<td>2.54 (.80)</td>
<td>3.78 (1.54)</td>
<td>3.01 (.93)</td>
<td>5.33* (2.35)</td>
<td>1.51 (.51)</td>
<td>5.54* (1.64)</td>
<td>2.37 (.45)</td>
</tr>
<tr>
<td></td>
<td>8.10 (4.48)</td>
<td>2.54 (.80)</td>
<td>3.78 (1.54)</td>
<td>3.01 (.93)</td>
<td>5.33* (2.35)</td>
<td>1.51 (.51)</td>
<td>5.54* (1.64)</td>
<td>2.37 (.45)</td>
</tr>
<tr>
<td>Canadian journal (s)</td>
<td>20</td>
<td>79</td>
<td>27</td>
<td>71</td>
<td>18</td>
<td>69</td>
<td>65</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>79</td>
<td>27</td>
<td>71</td>
<td>18</td>
<td>69</td>
<td>65</td>
<td>219</td>
</tr>
</tbody>
</table>

** p < .01.
* p < .05.
+ p < .10 (standard errors in parentheses).
Citation patterns enable systematic and relatively objective measures of scholarly influence. While there are differences in the citation disciplinary cultures of political science, sociology, and economics, we feel they are similar enough to allow for a comparative analysis. The most significant differences are that economists tend to publish exclusively via articles (which can often take the form of very brief “research notes”), as opposed to books, and as the two charts below exemplify, economists appear to publish and get cited more than their counterparts in sociology and especially political science.\(^{18}\)

It is worth noting that the majority of scholars do not publish in what we have identified as core journals at all, and that mean citation and publication values are relatively low, especially for sociologists and political scientists. Economists appear to publish more than other social scientists, perhaps because they often write shorter, mathematical articles either with little or no data, or already compiled datasets, thus often reducing the time it takes to write and publish an article. It may also have to do with a stronger professional ethos in the discipline, or the fact that the intellectual networks in the discipline are extremely centralized and well connected, relative to the other social sciences (Moody 2005a). Additionally, the lower citation and publication counts in political science and sociology may be due to a more prevalent culture of publishing via books, as opposed to articles. Regardless, these disciplinary differences underscore the cultural organization of differ-

\(^{18}\) A relevant disciplinary difference is that economists tend to publish coauthored pieces in alphabetical order, regardless of contribution, whereas other social sciences sometimes do not. Accordingly, we gathered citation data on first and lead author articles and data on citations to multiple authored articles and books. When we compared the results with both approaches, they came out similarly. Per custom in scholarly citation analysis, self-citations were excluded.

**Table 4**

<table>
<thead>
<tr>
<th></th>
<th>All universities</th>
<th>Research universities only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications in top 20 journals</td>
<td>1.659 (.496)</td>
<td>1.529 (.481)</td>
</tr>
<tr>
<td>Publications in top 3 journals</td>
<td>3.537 (2.383)</td>
<td>3.075 (2.100)</td>
</tr>
<tr>
<td>Publications in top (2) Canadian journals</td>
<td>1.122 (.165)</td>
<td>1.112 (.165)</td>
</tr>
<tr>
<td>Citations in top 20 journals</td>
<td>1.065* (.037)</td>
<td>1.081* (.042)</td>
</tr>
<tr>
<td>Citations in top 3 journals</td>
<td>1.131* (.065)</td>
<td>1.125* (.067)</td>
</tr>
<tr>
<td>Citations in top (2) Canadian journals</td>
<td>1.052* (.026)</td>
<td>1.048* (.026)</td>
</tr>
<tr>
<td>Total N</td>
<td>99</td>
<td>72</td>
</tr>
</tbody>
</table>

\(^*\) \(p < .05\).

\(^+\) \(p < .10\) (standard errors in parentheses).
ent disciplines, and why it is important to compare CRCs with a sample of non-CRCs in the same discipline. Below are $t$-tests comparing the publication and citation means for the CRC population and non-CRC sample.

For the most part, the means for the CRC population are larger than their non-CRC counterparts. The relatively small $N$ values for the CRC population likely inhibited many of the discrepancies from showing significance, as many relationships neared the $p < .10$ level, but were not quite significant. It may also be of note that there were no differences between the two groups with Canadian publications, except in political science where non-CRCs were more likely to publish. This may suggest that some CRCs tend to build a reputation within Canada via publishing outside of Canada. Regardless, simple $t$-tests cannot account for the composition of the two groups, nor can it control for age. Accordingly, a logistic regression equation was used to gauge the effects of publishing and getting cited in the top 20, top 3, and top Canadian journals in the relevant discipline. The time elapsed since a scholar received a Ph.D. in their field was held constant in the model. Odds ratios were derived from logistic regression to reflect the impact of each additional publication or citation on the chances of becoming a CRC. A value greater than one entails a positive effect whereas a value less than one demonstrates a negative effect.

While the $p$ values for economics were more frequently and strongly significant, the coefficients were smaller than their often nonsignificant

| Table 5 | Odds Ratios for Various Publication Indices in Regards to the Likelihood of Identifying a Canada Research Chair in Political Science |
|-----------------|-----------------|-----------------|
| Publications in top 20 journals | 1.432 (.360) | 1.332 (.376) |
| Publications in top 3 journals | 3.000 (3.122) | 3.755 (4.753) |
| Publications in top Canadian journal | .751 (.216) | .670 (.211) |
| Citations in top 20 journals | 1.092* (.042) | 1.060+ (.041) |
| Citations in top 3 journals | 1.232* (.145) | 1.196 (.179) |
| Citations in top Canadian journal | 1.021 (.317) | 1.003 (.033) |
| Total N | 98 | 70 |

* $p < .05$.
+ $p < .10$ (standard errors in parentheses).

19. The authors thank Lowell Hargens for this idea.
20. As shown in the correlation matrix in Appendix B, there appears to be some multicollinearity with the top 20 and top 3 publications and citations, as may be expected. Consequently, they are never used in the same models.
21. The average time since Ph.D. for the CRC population was 15.75 years and for the non-CRC sample was 17.61 years.
counterparts in sociology and political science. This may in part be due to the fact that economists publish more articles in a relatively unified journal-based scientific community. To better gauge differences between allocation outcomes in various disciplines (if any), additional models were tested using the pooled data, which entailed creating dummy variables for economics and political science (thus making sociology the reference discipline), testing for interactions in the top 20 and top 3 journals between the discipline dummy variables and publication counts.

Contrary to our predictions, there are no apparent or significant field effects according to these analyses, as the economics dummy variable had no significant effect on the likelihood publications and/or citations leading to CRCs.\(^{22}\)

A recurring theme across disciplines in the above tables is that when all universities and scholars are included, on the whole, CRCs tend be cited slightly more than non-CRCs, often at a significant level, especially in the economics and pooled analyses. When analyses are restricted to research universities (whose professors are generally hired and supported to place greater emphasis on publishing than in other universities), the relationships generally attenuate. Economics had relatively smaller coefficients but tended to be significantly more than in sociology and political science, even when the analysis is restricted to research universities.\(^{23}\)

\(^{22}\) Models were also run using political science and economics as reference disciplines, none of which yielded significant results or differences.

\(^{23}\) As discussed, since CRCs are research oriented, regardless of which university they are situated in (CAUT 2005), comparing them to a random sample of average professors at research universities is probably not a very stringent criterion.

### Table 6

**Odds Ratios for Various Publication Indices in Regards to the Likelihood of Identifying a Canada Research Chair in Economics**

<table>
<thead>
<tr>
<th></th>
<th>All universities</th>
<th>Research universities only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications in top 20 journals</td>
<td>1.172** (.063)</td>
<td>1.145* (.061)</td>
</tr>
<tr>
<td>Publications in top 3 journals</td>
<td>1.680** (.311)</td>
<td>1.586* (.297)</td>
</tr>
<tr>
<td>Publications in top Canadian journal</td>
<td>1.444 (.338)</td>
<td>1.273 (.303)</td>
</tr>
<tr>
<td>Citations in top 20 journals</td>
<td>1.043** (.014)</td>
<td>1.036** (.014)</td>
</tr>
<tr>
<td>Citations in top 3 journals</td>
<td>1.240** (.089)</td>
<td>1.200** (.083)</td>
</tr>
<tr>
<td>Citations in top Canadian journal</td>
<td>1.132* (.061)</td>
<td>1.112* (.058)</td>
</tr>
<tr>
<td>Total N</td>
<td>87</td>
<td>68</td>
</tr>
</tbody>
</table>

\(** \quad p < .01.\)

\(* \quad p < .05.\)

Standard errors in parentheses.
An important characteristic of these data is the great deal of overlap between CRC and non-CRC distributions, especially around the modal value of zero. The modes of the publication and citation data are almost always zero, and the median is slightly above zero, suggesting that most Canadian academics (including CRCs) do not publish or get cited in these core journals. This should not be surprising given recent research in social networks (Newman 2001; Barabási et al. 2002), which has found that academic disciplines, including sociology (Moody 2004a), function as a scale-free network (see Barabási and Albert 1999) where actors preferentially attach themselves to a few high-activity nodes in the network. This is not unlike the manner in which cultural “superstars” are created (see Rosen 1981; Frank and Cook 1995). It also reflects previous work by Lotka (1926), Merton (1968), Crane (1972), and Collins (1998), which suggested that a small proportion of scholars in a scientific community enjoy exponentially greater degrees of attention and eminence. Preferential attachment allows academics in a network to share many of the same connections and ideas, which helps buttress professional identity-affirming homophily and disciplinary boundaries (see Gieryn 1983). Hence, particularly in situations where standards of merit are clear and adhered to, it should be relatively easy to identify “stars” (who are theoretically potential CRCs), especially at the senior level.

Finally, Table 9 presents differences between CRCs at Ph.D.-granting departments and non-Ph.D.-granting departments.

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24. A department was operationalized as being a “Ph.D.” department according to whether or not it had a doctoral program as of August 2004.
CRCs in Ph.D.-granting departments have twice the amount of time since Ph.D.\textsuperscript{25} on average, compared with non-Ph.D.-granting departments but publish roughly four times more and are cited eight times more. These rough analyses suggest that, on average, CRCs in nonresearch settings tend to have weaker records and reputations in the cores of their discipline.\textsuperscript{26} While a small proportion of CRCs at smaller, nonresearch universities had relatively high publication and citation counts, the overall trend suggests that smaller universities tended not to recruit CRCs with relatively strong records. This is not surprising, given Brint’s (2005) observation that smaller and more peripheral universities often tend to try to innovate outside of the cores of disciplines and/or outside of traditional disciplines altogether. Accordingly, the manner in which the CRC program endeavors to spread CRCs across universities all across the country (especially smaller institutions) may have the consequence of distributing CRCs to more intellectually peripheral scholars. Davies and Hammack (2005) observed the tendency in the Canadian academy to emphasize egalitarianism over hierarchy (also see Davies and Zarifa 2006), which McLaughlin (2005) dubbed institutional flatness.\textsuperscript{27} This is a key feature of the CRC program, and one that appears to often be conducive to the allocation of CRCs peripheral to the scientific cores

\begin{table}
\centering
\caption{Odds Ratios for Interaction Effects between Disciplines and Publication and Citation Values Relative to Sociology}
\begin{tabular}{|l|c|c|c|c|}
\hline
 & Publications in top 20 journals & Publications in top 3 journals & Citations in top 20 journals & Citations in top 3 journals \\
\hline
Economics & .91 (.40) & .83 (.35) & .83 (.37) & .77 (.34) \\
Political science & 1.60 (.63) & 1.53 (.55) & 1.35 (.53) & 1.41 (.53) \\
\hline
\end{tabular}
\end{table}

\textsuperscript{25} This should not be surprising, given that smaller universities appear to generally be more inclined toward less costly Tier II CRCs (which, by definition, are for more junior scholars) in their strategic plans.

\textsuperscript{26} While using a Ph.D. program to differentiate between different types of CRCs may be a bit of a false dichotomy, it is a clear, consistent, and reasonable means of distinguishing between different institutional contexts within the somewhat hierarchical context of Canadian higher education. Anecdotally, it seemed that even within Ph.D.-granting departments there was a hierarchy, with more established and prestigious departments tending to have stronger CRCs. Since this is an impressionistic conjecture that cannot be rigorously tested at this point (especially given that departmental prestige is a contested and subjective entity anyway), it will remain relegated to a footnote for now.

\textsuperscript{27} While previous discussions of the CRC program (Grant with Turk 2002; Polster 2002, 2003; Drakich and Grant 2004) have focused on the alleged pathologies of hierarchical, inequality-perpetuating characteristics of the CRC program, our research also identifies converse social relations within the program, which are designed to inhibit hierarchy and inequality.
of their respective fields. While the CRC program tends to locate CRCs in larger research universities, the fact that it makes a concerted effort to endow peripheral universities appears to tend to suppress the citation and publication counts of CRCs as a whole.

DISCUSSION

In addition, and in contrast to core disciplinary interests and standards, there appear to be four main, nonmutually exclusive mechanisms influencing CRC allocations and appointments. CRCs in non-Ph.D.-granting departments (which tended to be smaller, more peripheral, regionally oriented universities) tended to be younger and much less published (even after adjusting for age) than CRCs in Ph.D.-granting departments. Accordingly, the institutional flatness characteristic of the allocation of CRCs is a mechanism that suppresses the aggregate publication and citation totals of CRCs. Given that many Canadian universities have a “local” mandate and vision, many CRCs are directed toward studying regional concerns (e.g., forestry, oil, and fishery issues for universities with corresponding geographic endowments), which may be venerable

Table 9

Mean Numbers of Publications and Citations of CRCs
(CRC and Non-CRC Sample Combined)

<table>
<thead>
<tr>
<th></th>
<th>Mean Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ph.D. department (N = 49)</strong></td>
<td></td>
</tr>
<tr>
<td>Publications in top 20 journals</td>
<td>2.45 4.76</td>
</tr>
<tr>
<td>Publications in top 3 journals</td>
<td>.63 1.42</td>
</tr>
<tr>
<td>Publications in top (1 or 2) Canadian journals</td>
<td>.78 1.75</td>
</tr>
<tr>
<td>Total publications</td>
<td>3.86</td>
</tr>
<tr>
<td>Citations in top 20 journals</td>
<td>21.57 51.55</td>
</tr>
<tr>
<td>Citations in top 3 journals</td>
<td>4.78 9.37</td>
</tr>
<tr>
<td>Citations in top (1 or 2) Canadian journals</td>
<td>7.04 14.93</td>
</tr>
<tr>
<td>Total citations</td>
<td>33.39</td>
</tr>
<tr>
<td>Average time since Ph.D.</td>
<td>17.04 10.09</td>
</tr>
<tr>
<td><strong>Non-Ph.D. department (N = 16)</strong></td>
<td></td>
</tr>
<tr>
<td>Publications in top 20 journals</td>
<td>.56 1.03</td>
</tr>
<tr>
<td>Publications in top 3 journals</td>
<td>.06 .25</td>
</tr>
<tr>
<td>Publications in top (1 or 2) Canadian journals</td>
<td>.38 .50</td>
</tr>
<tr>
<td>Total publications</td>
<td>1.00</td>
</tr>
<tr>
<td>Citations in top 20 journals</td>
<td>2.81 7.67</td>
</tr>
<tr>
<td>Citations in top 3 journals</td>
<td>.63 2.25</td>
</tr>
<tr>
<td>Citations in top (1 or 2) Canadian journals</td>
<td>.94 1.19</td>
</tr>
<tr>
<td>Total citations</td>
<td>4.38</td>
</tr>
<tr>
<td>Average time since Ph.D.</td>
<td>8.81 6.42</td>
</tr>
</tbody>
</table>
endeavors with the potential to directly contribute to the local community, but can sometimes be in tension with the interests of the larger academic discipline such practical work is presumably based upon. This mechanism may also contribute to disciplinary differences in citation and publication records of CRCs, if chairs in more (less) prestigious disciplines are more likely to be awarded in more (less) eminent universities. In contrast, higher status universities and departments tend to stress national and international ideals over local concerns, and tend to be more amenable to the abstractions and liberal arts ideals (i.e., "knowledge for its own sake") of traditional academic disciplines (see Brint 2005) and their concomitant reward systems.

As Canada has a number of universities with identities and missions spanning continua between large urban public research universities, liberal arts colleges, and vocational institutes to varying degrees, it follows that not all research investment will be oriented toward core disciplinary interests. Further, on a more finely gradated level, hierarchies within Ph.D.-granting departments in Canada exist in various disciplines, as it seemed that relatively highly cited and published CRCs and non-CRCs tended to be located in larger universities, which tend to be highly rated in the Maclean’s magazine university rankings. Specifically, in the pooled data set, scholars from three universities—McGill University, University of British Columbia, and University of Toronto—accounted for six of the top 10 publication counts in the top 20 journals, and eight of the top 10 citation counts. Among the CRC population alone, the three universities accounted for four of the top 7 (roughly the top decile in the CRC population) publishers and five of seven of the most cited. However, a more finely gradated examination of the interaction between department and university status and CRC allocation would be difficult, due to the small N values involved and the murkiness of departmental quality hierarchies in various disciplines (which do not necessarily coincide with the

28. Incidentally, 56–60 percent of CRC sociologists (depending on how one codes CRCs at a research university in a “non-liberal arts” department), 78 percent of CRC political scientists, and 78 percent of CRC economists are at universities with Ph.D.-granting departments in the relevant discipline. Given the previously presented data, which suggested that CRCs in smaller universities tended to be younger and less prolific, this may be a macrostructural factor that curtailed the publishing records of sociology CRCs as a whole in our analyses, and is an additional factor that influences the differential publication and citation rates between the disciplines. However, since this is a relatively crude analysis, and cannot account for differences in quality between Ph.D.-granting departments, or that some nonresearch departments may be of higher quality and prestige than some Ph.D.-granting departments, it remains relegated to a footnote for now.

29. The recent Social Sciences and Humanities Research Council of Canada (2004:5) strategy report appears to advocate deviation from these “scholarly core” and liberal arts ideals in its emphasis of beliefs that “the social sciences and humanities are no longer just academic” and that “researchers need to maximize their impact on Canadian society.”

30. In both cases, six of the top 10 scholars were CRCs. Also, it is worth noting that some scholars (both CRCs and non-CRCs) from those three universities were sparsely cited and/or published. This may be indicative of the dual and perhaps contradictory roles of contemporary large public universities to simultaneously be internationally competitive research institutions, while providing services to constituents and various stakeholders.
Regardless, there is already evidence that institutional status and institutional flatness in Canadian higher education are factors that influence, and are influenced by, the CRC program.

The remaining three mechanisms are more speculative in nature, as they are not directly supported by the preceding analyses and cannot be directly tested with the small N values and data involved. Nevertheless, they remain worth mentioning as they seem consistent with many of the observations comprising our data set and could be generative of future research. Since the CRC program involves the transfer of funds to institutions as opposed to individuals, the exact nature of scholarly rewards and resources that accrue to a CRC is a context-dependent, negotiated, and idiosyncratic process, based on the specific universities, departments, administrators, and scholars involved. While the data and analyses in this study were macrostructural in nature, cognizance of institutional contexts and processes is also important. Brint’s (2005) recent study of interdisciplinary programs throughout universities in the United States is an example of a study that shows the potential value of such inquiry. While interviewing stakeholders across Canada may provide another perspective on CRC or more general reward allocation and allow for greater knowledge of the contextual factors that shape policy implementation, the often confidential and opaque nature of CRC allocation would also likely constrain the data and insights that can be derived. Accordingly, a large-scale qualitative analysis of the CRC program would be an entirely different study than the one put forth in this paper (see Guetzkow, Lamont, and Mallard 2004; Lamont forthcoming for examples of qualitative inquiry of scientific reward systems). The analyses in this paper may suggest future directions for qualitative research to investigate institutional, departmental, and scholarly contexts and contingencies that may influence scientific reward allocation.

An additional relevant mechanism influencing CRC allocation and elite identification is the relative peripherality of Canadian scholarship. How and where Canadian scholarship is situated in global hierarchies in sociology has been the subject of much recent debate from both empirical and normative perspectives (e.g., Curtis and Weir 2002; Brym 2003; Baer 2005; McLaughlin 2005). The recurrent response that Canadian work has links to various intellectually currents and traditions throughout the world seems to be empirically corroborated by Moody’s (2005a) network map of sociology, which situates the only Canadian journal in his sample (Canadian Journal of Sociology) in a semiperipheral position between predominantly American and British clusters. Accordingly, the definition of scholarly merit in Canada may differ, or at least be more diffuse than from the largely American-based core of the field, as represented by the journals sampled in this article.31

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31. However, it is worth noting that most, if not all, of these American-based core journals are fairly cosmopolitan, with research and submissions published from all over the world.
Finally, the evidence supporting the relevance of disciplinary organization of sociology, political science, and economics, is mixed. While the paradigmatic unity and professional and political strength of economics should theoretically inure the discipline from encroachment, our analyses found that the relative difference between the records of CRCs and non-CRCs was not significantly different from those in political science in economics. Local factors that shaped the allocation process may have canceled out or attenuated effects pertaining to disciplinary differences between economics, sociology, and political science. However, there were also signs that disciplinary cultures and organizations were influential on the implementation of the CRC program in each field. As initially predicted, economics had shown notable signs of strength in the rhetorical framing of its CRC titles and a greater propensity for more lucrative Tier I allocations. Additionally, economics CRCs were exclusively trained in their home discipline, whereas many sociology CRCs (and to a lesser extent, political science) were not. This may be reflective of the broader organizational structures of each of the disciplines, where sociology departments are much more inclined (and economics departments are least inclined) to include faculty without Ph.D.s in their home discipline (McLaughlin 2006:110). However, we do not feel that disciplinary professional organization should be thrown away as a relevant mechanism for understanding elite selection and the political economy of higher education (at least not yet). It is possible that citation-level disciplinary differences may have been obviated or superseded by the other mechanisms mentioned in this article.

CONCLUSION

The preceding data and analyses suggest that CRCs are a heterogeneous population. Some are obvious “stars” in their fields (at least relative to their Canadian peers), others are somewhat visible in core journals, while others are totally absent. As a result, from a macrostructural perspective, it can be surmised that core disciplinary interests and standards of merit are often not a primary criteria for allocating CRCs. This is not to infer that CRCs who did not have any or many publications or citations in these journals are necessarily doing substandard or irrelevant work. However, it remains relevant to our analyses that some scholars have had a significant scholarly reward bestowed upon them despite being essentially unknown in a fairly wide array of central disciplinary journals in their respective disciplines. This has obvious implications for Canada’s international competitiveness in academic communities, which should be considered in light of the fact that the CRC program officially intends to improve Canada’s stature in research.

There is also evidence to support the argument that the CRC program often manages to coopt academic disciplinary interests in the framing and allocation of CRCs in a variety of contexts and manners. In sociology, the CRC program has provided little explicit support for furthering central and seminal areas of the discipline (e.g., sociological theory, research methods,
Political sociology). Political science also appears to be prone to similar issues in regard to the loss of reputational autonomy within the CRC program, which is perhaps an issue for political scientists to explore. Economics appeared to exhibit some signs of greater control over their reward structures and topical foci and rhetorical framing of CRCs, perhaps owing to its stronger and clearer professional identity (Klamer and Colander 1990) and network structure (Moody 2005a). However, despite this and the fact that there was a notable proportion of CRCs in sociology and political science without Ph.D.s in their relevant fields, the data and analyses suggested that economics did not differ from the other two disciplines in regard to the effect of publications and citations on the propensity to be awarded a CRC.

The institution of the academic discipline is a key lens through which various professional and political interests in academia are refracted through, including within the CRC program. Analogous to how the interests and normative ideals of universities and employers often do not coincide with that of unions, state interests and university administrators share a similar contradiction of interests between disciplines, themselves quasi-professional guilds. Instead of working within an academic discipline, for better or for worse, a given “problem” can be worked on without concerns of responsibility to the advancement and interests of the discipline. Abbott (2002:218) observes that this problem-based form of interdisciplinarity is especially prone to “fads,” or politically salient topics and other trends that cool off before the normal life-cycle of the career of a tenured professor runs its course. Further, Strang and Still (2004:325) suggest that “the range of innovations that experience faddish careers widens as the relationship between performance and prestige weakens.” As the CRC program often emphasizes problem-based research at the expense of canonically based work, this may be another mechanism moving academic rewards structures away from the ideal-type disciplinary elite model proffered by Stinchcombe (1994) and moving the occupation of a university professor away from the ideal types of occupational control suggested by Abbott (1988) and Brint (1994). Our analyses also substantiate an apparent concern in the official government-sanctioned *Fifth-Year Evaluation of the CRC Program* (2005:36), which reported that only 41.5 percent of surveyed social science faculty believed that CRCs were consistently being used to attract “leading, world-class researchers.”

More broadly, this research may speak to literature on the changing political economy of universities in the twenty-first century. Brint (2005) paints a picture where middle-status universities will be torn between trying to keep up with elite universities in the traditional liberal arts, and the temptation of shunning them for new endeavors and unique niches to differentiate and market themselves. Abbott (2002) envisions a future where roughly 50–100 universities in the world continue to support the traditional liberal arts, while others will focus more in applied, peripheral, and often “interdisciplinary” academic endeavors. Whether such a future is exciting or portentous (and whether and where Canada is able and/or
willing to compete) are political and normative matters beyond the scope of this article. Polster’s (2002) initial work on the CRC program suggested that academics were losing control over their work and standards due to the manner in which the CRC program gave university administrators and the government greater discretion over highly concentrated funding. Our research further substantiates this phenomenon. Future research may extend the scope of analysis to include additional disciplines, countries, and programs. Since Canada is not the only context where universities are juggling the interests and contributions of varied external stakeholders for resources, competitiveness, and survival, it is possible that these processes are operating in similar contexts and locales, with myriads of programs, and new institutional and professional orders.

APPENDIX A

Economics:

1. American Economic Review
2. Econometrica
3. Journal of Political Economy
4. Journal of Economic Theory
5. Quarterly Journal of Economics
6. Journal of Econometrics
7. Econometric Theory
8. Review of Economic Studies
10. Journal of Monetary Economics
11. Games and Economic Behavior
12. Journal of Economic Perspectives
14. European Economic Review
15. International Economic Review
16. Economic Theory
17. Journal of Human Resources
18. Economic Journal
20. Journal of Economic Literature

• Top 3:
1. American Economic Review
2. Econometrica
3. Journal of Political Economy

• Top Canadian:
1. Canadian Journal of Economics
Source: Kalaitzidakis et al. (2003).

Political Science:

1. American Political Science Review  
2. American Journal of Political Science  
3. International Organization  
4. Foreign Affairs  
5. Journal of Politics  
6. International Security  
7. Journal of Conflict Resolution  
8. World Politics  
9. Journal of European Public Policy  
10. International Studies Quarterly  
11. Public Choice  
12. Journal of Common Market Studies  
13. British Journal of Political Science  
15. Journal of Law Economics and Organization  
16. Comparative Political Studies  
17. Journal of Democracy  
18. Europe-Asia Studies  
19. European Union Politics  
20. Political Research Quarterly  

- Top 3:  
  1. American Political Science Review  
  2. American Journal of Political Science  
  3. International Organization  

- Top Canadian journal:  
  1. Canadian Journal of Political Science  


Sociology:

1. American Sociological Review  
2. American Journal of Sociology  
3. Social Forces  
4. Social Problems  
5. Demography  
6. Social Science Research  
7. Sociology of Education  
8. Social Psychology Quarterly  
9. Sociological Quarterly  
10. Criminology  
11. Sociological Methods and Research
12. *Journal of Research in Crime and Delinquency*
13. *Journal of Health and Social Behavior*
14. *Symbolic Interaction*
15. *Journal of Criminal Law and Criminology*
16. *Journal for the Scientific Study of Religion*
17. *Social Networks*
18. *Sociological Perspectives*
19. *Sociological Inquiry*
20. *Journal of Marriage and the Family*

- **Top 3:**
  1. *American Sociological Review*
  2. *American Journal of Sociology*
  3. *Social Forces*

- **Top 2 Canadian:**
  1. *Canadian Journal of Sociology*
  2. *Canadian Review of Sociology and Anthropology*


**APPENDIX B: CORRELATION MATRIX FOR POOLED DATA SET**

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