

**University of British Columbia
Centre for Policy Studies in Higher Education and Training (CHET)**

**Workshop on
Commercialization of University Outputs and Activities**

February 2, 2006

Summary of discussions:

A. Terminology

1. The term “commercialization” (which is used by Industry Canada, Statistics Canada and AUCC) connotes products or services that are sold to a market outside the university, at market rates, and according to market rules. It seems not always appropriate when looking at activities and outputs by the university, its various units, and individual faculty and (graduate) students. While the term implies “commodities” and “markets”, many of the outputs are not commodities as they cannot be owned and therefore cannot be “sold” in the market. Also, there is no “market” for some of the activities conducted by universities.
2. For example, the “market” with respect to teaching is highly regulated in that tuition levels (in the form of “ceilings” or “corridors”) are set by provincial governments. This means, for example, that universities cannot satisfy demand for off-campus, cohort-based degree programs in education in more remote parts of the province. The demand attracts US-based institutions to which such regulation does not apply. (Examples: Phoenix University offers degrees in adult education. State University of California at San Diego offers Masters programs for teachers.)
3. Some activities, for example, continuing studies and off-campus programs (often delivered on-line), are cost-recovery (either fully or to a large extent). But this is not quite commercialization, as it does not generate profits (which is one characteristic of commercialization), nor do revenues flow into private pockets. If revenues from an activity are greater than the direct and indirect costs, the surplus is re-invested, directly or indirectly, in the university (a non-profit organization) to support research, teaching, infrastructure or service activities. Thus, many cost-recovery functions should be more appropriately qualified as “academic services” that are delivered for a fee. There is discomfort around applying the word “commercialized” to university activities. Faculties, one speaker noted, are unreliable suppliers of teachers from a commercial point of view, and the university is not allowed to offer faculty (commercial) incentives. “Market prices” may sometimes be lower than “cost recovery” prices because competitors (private or public) may be able to deliver similar services more cheaply than the university can.

B. Range of Activities

4. “Knowledge transfer” activities susceptible to commercialization extend well beyond “research.” The AUCC explicitly recognizes as knowledge transfer: publications, consulting, public policy development, community engagement, cultural activities and the graduation of highly qualified personnel. Yet the AUCC Agreement with the Federal government and the StatsCan Survey on Intellectual Property Commercialization concentrate exclusively on university research.
5. However, the range of activities that could qualify as “pseudo-commercial” is more diverse. Thus, the UBC Dentistry Faculty has developed, together with industry, a management system for dentistry schools that is now sold not only to other Faculties of Dentistry but also to other UBC Faculties. Also staff of the Dentistry Faculty have co-developed, together with the industry, dentistry equipment. Instead of filing patent applications and licensing these patents, the Faculty gets to purchase equipment at a discount from the co-development partner. The Business school offers a full MBA in Shanghai, sells course notes, undertakes collective consulting projects, runs seminars, workshops and external training programs. Revenues go back to the faculty for general purposes, including higher salaries to attract better professors – “enhancing the learning environment.”
6. Like other faculties, the Dentistry Faculty also receives additional revenue from differential fees for international students (\$60,000 for international, compared to \$40,000 for domestic students). UBC, like other universities, systematically “recruits” international students that pay differential fees, thus leveraging additional revenue. This could also be seen as offering an “academic service” at a market rate.
7. Many outputs are not measured at all, e.g. consulting, graduate student internships, collaborative research, and impacts of licensed technologies.

C. Impact or “Rates of Return”

8. There is great difficulty measuring the impact or, in economic terms, rate of return of these “academic services” and other university activities. One problem is time lag. Some of the returns may take years to occur or become apparent. Another problem is that “benefits” or “returns” are not all economic in nature. They may be social or cultural or environmental and therefore very difficult to quantify. Therefore, calculations of benefits or returns are often no more than wild (and perhaps optimistic) guesses.
9. For example, it was pointed out that a recent AUCC report on returns to university research projects (*Momentum*, Fall 2005) was almost certainly a gross overestimate; it was based on just one source, whose assessment of benefits has been shown to be quite unrealistic.

10. More precise and accurate information comes from StatsCan's Annual Survey of Intellectual Property Commercialization in the Higher Education Sector, based mainly on licensing and patents data. According to StatsCan, Canadian universities and research hospitals in 2004 filed 1,265 patent applications, received 396 patents and held a total of 3,739 patents in Canada, US and other jurisdictions. In the same year, they received \$51 million in income from IP Commercialization of which \$22 million was retained by the institutions. They created 51 new spin-off companies to commercialize their IP, bringing the total of spin-offs up to 970 firms.

Although these data are more accurate than the AUCC conclusions, the StatsCan Survey can be criticized on three points. First, the survey was limited to universities and research hospitals, which leaves out the entire college and institute sector, where lots of "applied" research is conducted (and which, in some provinces, are also authorized to confer "applied" degrees.)

11. Second, there is no measurement of the economic impact of these patents beyond licensing fees and license regulations. StatsCan does not follow up on how the patents are being used, nor are IP commercialization data linked to company surveys.
12. Third, as mentioned already, university activities encompass more than just research. In order to gauge the effects of these activities – faculty consulting, continuing education, and others – a more comprehensive approach is needed.

One barrier to better information is the confidentiality restriction on StatsCan publication of data that could reveal information about individual institutions. Several speakers said that universities would be willing to waive the confidentiality protections.

13. One example of the latter is a new project at UBC, my.CV, which allows professors to compile CV data, including a wide variety of academic and community activities and achievements, in a standard database. One incentive for faculty is that my.CV easily produces reports in formats demanded by the university administration and various granting councils. The benefit for the university is that it could enable systematic measurement of many different impacts of the academic enterprise.
14. On what measures there are, when outputs are compared with inputs, British Columbia fares well. This looks to be more a result of historical conditions (e.g. McGeer heritage) than university policy (e.g. IP ownership).