



Self Assessment

Addendum for January 1 to June 30, 2008

University of Michigan, Ann Arbor

CARSS Self Assessment—Addendum for January 1 to June 30, 2008

Introduction

Our original self assessment was submitted to the Office of the Provost in December, 2007, in anticipation of a planned external review during the winter months of 2008. Because of repeated postponements of that review, nine months will have elapsed since the report was completed. This supplement summarizes and highlights key developments over the final six months of the University's fiscal year and of the academic year 2007-8.

Overview

Lacking feedback from an external review and a decision about the future of CARSS beyond June 30, 2009, the forward planning efforts noted in the original report—namely, active exploration of new project ideas and a new approach to developing a cache of venture capital from private sources—could not be fully energized. Ironically, CARSS finished the fiscal year with a larger carry-over balance than was anticipated at the outset of FY07-08 (nearly \$900,000 rather than just over \$300,000; the very encouraging reasons for this much larger than expected balance are addressed below). Had the signals about continuing or closing the doors been clear by March or April, we could have deployed those monies strategically beginning in FY08-09, for example as investments in future projects, or alternatively as more aggressive and accelerated efforts to transfer projects to other units, or conservatively as retained assets to cover the transition costs of relocating staff and terminating projects during the months after June 30, 2009. Not only could we have reactivated an earlier effort to solicit project ideas by visiting deans, directors and meeting with faculties; we also could have met with a new cohort of campus leaders, especially new deans, to familiarize them with CARSS' mission, its record of accomplishment, and to explore future common cause. Perforce, we have necessarily taken the most conservative approach with others' time and our resources, since our obligation to turn off the lights without any overhanging debt and having met all HR obligations to long-term U-M and ISR personnel on CARSS' staff have first priority in this uncertain situation. The most regrettable consequence of this uncertainty and this conservative decision is that CARSS appears to have lost energy and momentum, at least in respect to its "visioning" and planning for a possible future. And among the new cohort of campus leaders, we are hardly on their radar screens.

That having been said, the period through June 30, 2008 has been a time of remarkable accomplishment within ongoing and past CARSS' projects. It was marked by highly successful fund raising, especially within the SMART project. This produced salary savings and garnered additional indirect cost recovery and is the principal reason for the large carry-over balance noted above. Significant progress was achieved in preparing at least one of the projects—School Reform and Beyond (SRB)—for a hand-off to appropriate next research administrative homes at Michigan and elsewhere. In this period, current and past projects have generated additional scholarly publications, "white papers" identifying and justifying new problem-inspired research directions, international knowledge communities of researchers and reflective practitioners now engaging in phased collaboration, strategic new business directions for industrial partners based on CARSS as a "thinking and doing tank" and a "link tank," and

funding proposals for complex collaborative research and for a science and technology center. Last, and even within a more conservative mode, active explorations have moved forward on at least one new potential project—focused on America’s sustainable energy future and aimed at capitalizing greater social science input to addressing that problem with evidence-based and knowledge-generating strategies. In short, the first six months of 2008 embrace one of the most productive, energetic periods in CARSS’ brief lifetime.

School Reform and Beyond (SRB)

The principal aim of SRB is to develop a scaled-up evidence-based intervention that will offer replicable strategies in policy and practice that demonstrably accelerate literacy proficiency (reading to learn) for all by the end of Grade 5, but especially among children from families of low income, recent immigration, and color. SRB’s ultimate intervention will be based in three interactive strategies: (1) whole school reform in curriculum and on-going professional development from pre-K through G 5; (2) elevating school readiness with focus on child health and supportive parental engagement beginning at birth; and (3) addressing the policy and socioeconomic contexts of communities that optimize supportive, sustainable, and effective engagement of cities and communities with the schools and in preparing children for them.

Notable progress was made through June of 2008 in preparing the first of the three intervention strategies—whole school reform—for pilot testing, with foundation and potentially IES (Institute of Educational Sciences, Department of Education) funding by the fall of 2009. By the time of the visit by the review team in mid-September, one draft proposal—to be submitted to IES in October—will be available. A second will be in substantial preparation for the same target date, and a third will just be underway for submission to NICHD in March 2009. This rapid pace of proposal writing since May represents a first stage hand-off of SRB’s research and development phase of the pre-K to G5 intervention to appropriate research centers. One of these will be a partnership between Michigan’s Center for Human Growth and Development, directed by Daniel Keating, and U-M’s Institute for Social Research, where Brian Rowan is Research Professor and directs its educational research programs. A second research base will be at New York University, as noted below. (The remaining two strategies are still in their incubation stage and will be further developed by CARSS, assuming CARSS remains operational.)

Several key developments within the first six months of 2008 triggered these rapidly emerging outcomes. First, the K-G5 design team, led by Fred Morrison and supported by Keating and Rowan, took the strong consensus of the mid-2007 design conference that the strongest evidence-based candidate for whole school reform is “Success for All (SFA),” developed and evaluated in randomized trials by Robert Slavin and Nancy Madden over a 25 year period. In spring, Slavin and Madden joined the SRB project as co-investigators when the SRB leadership core committed to using SFA as the evidence-based platform for whole school reform from pre-K through G 5. This decision reflects the primary commitment of SRB to whole school literacy reform and a corresponding commitment of Slavin and Madden to partner with SRB in further developing and evaluating a revised SFA curriculum that meets SRB’s goals.

Second, and following a December design conference to identify candidate evidence-based intervention approaches within the pre-K phase of the first school transition, new leadership was added to the SRB core team: Cybele Raver at NYU and Stephanie Jones at Harvard, and supported by former SRB principals Deborah Phillips at Georgetown and Larry Aber at NYU. Raver and Jones will head the pre-K design effort and Raver's center at NYU will be the future research base for the pre-K component of the whole school reform intervention as funding proposals are submitted in late summer of 2008.

The Raver-Jones team, including Morrison as liaison with the K-5 team, leads the effort of behalf of the full SRB design process in developing a research-based intervention for socioemotional learning and executive functioning that can be horizontally aligned with and within the academic (literacy) curriculum of SFA and augmented in implementation by ongoing teacher supports (e.g. mentoring) and professional development across the pre-K to K transition and then upward, that is, with vertical alignment through Grade 5 as well. The pre-K team decided to draw upon additional professional colleagues, especially those who have authored evidence-based materials—such as PATHS, Tools of the Mind, and the 4 Rs—that have various legacies of experiments, pilot tests, and randomized trials to recommend them. This developmental effort is underway currently, with Hewlett Foundation support (other bridging funding is being sought concurrently), and will be rolled into the first year of a three-year, Level 2 proposal to IES in October.

A third important development was the hiring of a “COO” for SRB, Assistant Research Scientist Robin Jacob, with appointments in the School of Education and ISR (in Rowan's education program). Jacob bridges the pre-K and the K-5 design teams and together with guidance from the teams' co-leaders—Raver, Jones and Morrison—is responsible for coordinating design decisions so that the goals of horizontal and vertical alignment, fidelity, and effective implementation are well specified and plausibly achievable in proposals she will have primary responsibility for drafting and circulating to the various teams.

The overall work plan for the coordinated pre-K and K- G5 efforts is for one year of curriculum development and of collateral professional development protocols, followed by one year of pilot testing for fidelity and a final year of testing implementation. The target school site must be negotiated, but the candidates will be schools in a district using SFA in a state with state-funded pre-K.

CARSS will remain supportive of the pre-K to G5 whole school reform strategy by the two coordinated and partially overlapping design teams and their SFA partnership—mainly by continuing to seek bridging funding from foundations until IES funding becomes available. CARSS will also help broker access to partnership schools. But as research funding commences, perhaps in June 2009, CARSS will hand off that portion of the SRB project to the two research nodes, at Michigan and NYU, where the research and the grants will be based. (Each Level 2 IES grant will request \$1.5 million for three years.)

In the meanwhile, CARSS took steps in late spring 2008 to solicit practitioner input to the design proposals for the coordinated pre-K and the K-G5 developmental work and pilot testing. With leadership from Dr. Kenneth Burnley, former CEO of the Detroit Public Schools and an

SRB principal, panels of consultants and practitioner commentators have been identified and will be meeting during the summer of 2008 with the SRB design teams. That is, we shall acquire this input before proposals are finalized for submission. Other meetings are scheduled with the two main teacher unions—the NEA and the AFT. The issues on the table include how best to present the SRB intervention as a powerful new tool in the hands of teachers to accomplish better what they now find difficult to achieve; and, how best to motivate rather than alienate teachers as allies in the program of “best practices” in which they seek to help each other achieve the program’s goals as their goals. While we expect these conversations to be tough reality tests, we believe that SRB via CARSS needs to be on record as actively seeking to roll out an evidence-based strategy that can honestly purport to reflect practitioner input, if not also formal endorsement, as well. And we want to acquire this input early and on an ongoing basis at other research and evaluation phases. We shall ask teachers and schools to develop a culture of continuous improvement; we need to emulate that model ourselves.

Sustainable Mobility and Accessibility Research and Training (SMART)

A key objective of SMART is to construct evidence-based strategies of sustainable transportation—mobility and accessibility—for large urbanized areas of the U.S. and for megacities and their satellites outside North America. Sometimes this goal is pursued under the rubric of “new mobility.” Another is to stimulate interest within the private sector and among social entrepreneurs about business opportunities associated with new mobility, prompted in part by the flagging automotive economy of Michigan but also capitalizing upon rapidly emerging prototypes of new mobility in Europe and Asia. Finally but not least important, a key objective is to consolidate disparate research and knowledge communities around the world that are seeking to understand how new mobility emerges, as public policy and practice and within business plans of small and large firms. An important adjunct of this latter goal would help galvanize greater research capacity at Michigan, especially in the social sciences, to participate in this research community—a capacity that at present is more visible among U-M’s engineers than among social scientists.

Within the first six months of 2008, large strides were taken toward all of these objectives. First, with sponsorship from the Ford Motor Company, Royal Dutch Shell, and Octillion, SMART convened and hosted a “New Mobility Summit” at U-M’s Rackham School of Graduate Studies. It was attended by roughly 150 key industrial and commercial leaders (e.g., William Clay Ford, Jr.; Neil Golightly), social entrepreneurs (e.g. Robin Chase), as well as academics and demonstration project leaders from S. Asia, Europe, S. Africa, and the U.S. Opened by remarks from U-M President Mary Sue Coleman, the summit profiled and accelerated SMART’s work (via a panel highlighting SMART’s research and conceptual output on sustainable mobility and accessibility). It also provided a platform for new mobility project leaders—some focused on emerging new mobility enterprises and others summarizing research emerging from new mobility “demonstration projects” (e.g. mobility hubs as a systems approach to urban accessibility challenges). And the conclave featured the growing and broad landscape of business and commercial opportunities here and abroad for “new mobility industry”—a new transportation economy—to emerge. In that vein, the most “buzz” locally from the summit occurred when Wm. Clay Ford, Jr. and Ford Motor V.P. Sue Cischke announced a new business strategy for Ford that embraced “new mobility,” especially in its

business plans for the developing world. They cited SMART at U-M as an important partner is helping shape that strategy going forward, using the Ford Urban Mobility Networks as test beds (demonstration projects) for new business practices and for research and evaluation of models.

As a result of advance planning for the summit and its success and publicity over its three days, SMART has been sought as a “thinking and linking tank” for new strategies of urban transportation. This includes (among other local entities) the Office of the Governor of Michigan, the Detroit Regional Chamber of Commerce, and the Detroit Urban Land Institute. Nationally, Susan Zielinski, SMART’s Managing Director, was asked to provide advisory support for upcoming federal transportation legislation by T4 America. Internationally, Zielinski and SMART faculty have been invited into conversation with CIVITAS, the World Transport Forum (formerly OECD’s ECMT), the former Mayor of London and the C-40 initiative, and Zielinski was asked to chair the Steering Committee of the EcoMobility Alliance. And in recognition of the fruitful new conversations and nascent networks that the Summit promoted, SMART was strongly urged through a post-summit evaluation process to convene such meetings on revolving topics on an annual basis. SMART (and its locus at U-M) took a big step, therefore, toward becoming the go-to place for information, networking, and agenda setting for “new mobility.” To facilitate that outcome, SMART recently launched its new website: <http://um-smart.org> ; it also is distributing occasional e-News to its extensive international mailing list. Evidence of SMART’s emergence as a thought leader appeared, after the Summit, in NPR interviews, the Detroit Free Press, and Business Outlook (India’s largest business magazine). An upcoming issue of Wired Magazine featuring New Mobility contains post-summit interviews of SMART leadership. SMART also gained honorable mention in MIT’s “Hidden Successes” competition with an article on “public-private innovation” in new mobility. And SMART was just cited in the National Academy of Engineering report, “Grand Challenges of Engineering for the 21st Century” (<http://www.nae.edu/nae/bridgecom.nsf/weblinks/MKEZ-6WHPJK?OpenDocument>).

Second, through SMART’s partnership with Ford on the Urban Mobility Networks, several additional international and domestic demonstration projects and sites will provide research opportunities for faculty and students (see the December Self-Assessment for more information on “mobility hubs”). Domestically, graduate student Krista Gullo and faculty advisor Thomas Gladwin have collaborated with Zielinski to draft a “white paper” for the National Science Foundation as part of the final report of SMART’s NSF grant. It develops a rationale for future new research directions—topical areas and potential national and international partnerships—for sustainable urban mobility and accessibility. The report also includes several “critical analysis papers” about gaps in research and conceptualization; several papers are expansions of the presentations by SMART research faculty at the June New Mobility Summit. (A copy of this report will be available at the external review.)

Third, while SMART has achieved a visible and respected profile internationally as a convening auspice among researchers, social entrepreneurs and in the emerging “new mobility” business and industrial communities, its impact on research programs and research capacity at Michigan is just now beginning to materialize. The December Self Assessment reported the submission by SMART of an IGERT in conjunction with a broad array of faculty but principally those in the College of Engineering. That IGERT was very highly praised in

review, in large part because of its bold, fresh vision and the highly interdisciplinary mix of its faculty; but it was not funded. Undeterred, and with renewed energy from engineering faculty of the Wu Manufacturing Center, SMART submitted a campus letter of intent for the local round of reviews in anticipation of the upcoming NSF Science and Technology Center competition with a focus on sustainable urban transportation and accessibility.

It is fair to say that by the summer of 2008, SMART has achieved about as much momentum and grounding from its incubation within CARSS as has been necessary for it to stand on its own feet. Thanks in the main to increased funding from the Ford Motor Company and creative leadership from SMART's managing director, Zielinski is self supporting, and most of SMART's key program areas—especially those related to the Ford partnership but not exclusively so—also are funded by extramural sources. Zielinski is an inspired, energetic catalyst with a clear vision for SMART's next steps. The faculty leadership core has grown and remains actively engaged in monthly meetings, and new members, including reflective practitioners apart from those from Ford, will be added in the coming year. Over the first half of 2008, several exploratory conversations with unit directors and among the SMART leadership were initiated by Featherman to identify prospective future administrative homes for SMART.

Completed Projects: Global Corporations and Well-being; Developing Alternatives to Self Interest (DASI)

Global Corporations. While the Global Corporations project has been formally inactive for two years as a CARSS-related enterprise, its intellectual legacy continues. The most recent publications include:

Gerald F. Davis and Petter J.J. Anderson, 2007. "Social movements and failed institutionalization: Corporate (non)response to the AIDS epidemic" In *The SAGE Handbook of Organizational Institutionalism*, edited by Royston Greenwood, Christine Oliver, Roy Suddaby, and Kerstin Sahlin-Andersson. London: Sage. (Forthcoming.)

Gerald F. Davis and Marina von NeumanWhitman, 2008. "The social responsibility paradox." *Stanford Social Innovation Review*.

Developing Alternatives to Self Interest (DASI). During late 2007 and early 2008, DASI held a series of monthly meetings for interested faculty and graduate students. Those meetings prompted reflections on what had been learned and accomplished, assessments of topics of continuing common interest, and new opportunities for collaboration. While energizing in many ways, these discussions concluded that DASI as such had run its course and would be revived in the future only if new voices called for it.

Meanwhile, two intellectual projects based in different interdisciplinary scholarship have emerged as a legacy of DASI. One is a collection of papers commissioned for a co-edited volume, *Self-Interest and Beyond: Toward a New Understanding of Human Caregiving*. The co-editors are Stephanie Brown (General Medicine, U-M School of Medicine), Michael Brown

(Pacific Lutheran University, Psychology), and Louis Penner (Wayne State University, Karmanos Cancer Institute). The commissioning of the papers drew upon the DASI seminar experience and speakers and was made possible by the remaining budget and a small supplement to it from CARSS' commitment to the DASI project. While the papers are still being completed, initial editorial reviews at Oxford University Press expressed strong interest in publishing the final manuscript. In a March 7 email message from Lori Handelman, Senior Editor for Oxford's Brain and Behavioral Sciences and its Medical Division, the prospectus for the book was compared favorably to its best seller, *The Nature of Emotion: Fundamental Questions*, co-edited by Paul Ekman and Richard J. Davidson, and Handelman proposed that Brown et al. use that book as a model. To foster that kind of final product, CARSS hopes to work with Brown in the coming months to convene a working conference among the authors of these chapters and to foster discussions and cross-fertilization prior to the final revisions and publication.

The second product is less directly tied to DASI as such and more to new interests of Stephanie Brown, one of DASI's co-conveners. Together with Stephen Post (Case Western), Brown submitted a proposal to the John Templeton Foundation in March 2008 in which she would commission CARSS to help recruit an interdisciplinary advisory panel, form a set of collaborative topical working groups, and facilitate a program of problem-focused conferences, workshops, and both scholarly and practical outreach products. The overarching theme is altruism and health. While the administrative base of this proposed program of projects would remain in the U-M Medical School, CARSS would provide consultation and staffing as a "subcontractor." Initial screening of the program by the Foundation has been highly promising for this three-year endeavor.

Future Projects and Forward Planning

If CARSS's lifetime were extended beyond June 30, 2009, its next substantive agenda would be a combination of completing the incubation of the remaining components of SRB, of soliciting and vetting new project ideas, and of incubating one or more new projects. The December 2007 Self Assessment (pp. 68-71) contained a hypothetical future agenda and several principals for selecting them, were CARSS renewed. In supplement to that, the following are some additional ideas and recent developments.

SRB. Two of SRB's strategic interventions remain undeveloped and CARSS' role in moving them forward—as it has the whole school reform intervention strategy—seems vital to achieving the full project's objectives. With respect to the school readiness strategy (for children ages 0-3 and their families), one leading candidate (as noted in the December Self Assessment) is some formulation of a conditional cash transfer program to "incentivize" parental investments in very young children's preventative physical and mental health, for example. A recent conference in Bellagio brought together the principals conducting various forms of CCT "experiments" throughout the world. SRB's Larry Aber attended, in part based on his ongoing work in New York and South Africa. Together with Aber, David Featherman and Daphna Oyserman of SRB plan to convene a related reconnaissance of this approach in 2009, augmented by theory-inspired commentary from behavioral economics and social

psychology (e.g. identity-based motivation) to explore new approaches to “incentivizing and motivating the demand” for tools and services that better prepare very young children for pre-K and beyond. They plan to co-author a concept paper to frame the rationale for this intervention strategy and for its relationship to accelerating whole school reform outcomes of the first strategy. The successful scenario followed by the joint whole school reform intervention teams—one or more reconnaissance meetings followed by a design conference among candidate interventions/interventionists and then a design team getting down to work—may be a useful model for a two-year developmental period.

Similarly, the third SRB intervention strategy needs CARSS’ incubation. It seeks to “capitalize the supply” of community-based services and of non-educational policies and practices that putatively leverage educational outcomes and optimize school readiness. CARSS leadership and staff opened conversations with Cliff Johnson of the National League of Cities and with Bruce Hunter of the American Association of School Administrators. Both represent constituencies eager to more fully identify best practices of bringing cities, communities and schools into better alignment in addressing the challenges of urban children’s education. CARSS and AASA will jointly convene a set of “cities in schools” and “communities in schools” programs in early 2009 and begin to evaluate what seem to be successful joint city-school and parent-school endeavors, especially those most effective for early childhood and the first school transition. This is an arena that offers SRB key new leadership, diverse leadership opportunities to pioneer and develop and then champion this third intervention approach. Again, a two-year developmental series of conferences leading to a design team’s efforts would be feasible.

SMART. Ongoing conversations about SMART’s future administrative home raise hopeful prospects. It remains the objective of CARSS leadership and the leadership core of SMART to complete a successful administrative hand off by June 2009 or as soon thereafter as possible. Important in this transition, however, is finding an administrative setting that will embrace SMART’s unique constellation of objectives and also provide for Susan Zielinski, its Managing Director, an appropriate position and title that will continue the creative flexibility she has enjoyed as part of the CARSS staff.

America’s Energy Challenge and the Social Sciences. This general theme was mentioned in CARSS’ December Self Assessment as a possible new project focus, among a few others. This one seemed promising and strategic, in part because CARSS might play a catalytic role in facilitating initiatives about energy being taken by key campus units and their leaders.

During the early months of 2008, Featherman met with Associate VP for Research, Steve Ceccio (Mechanical Engineering), Gary Was (Director of the Michigan Memorial Phoenix Energy Institute and Professor of Nuclear Engineering), James Penner-Hahn (chemist and Associate Dean of LS&A), Carl Simon (economist and Director of the Center for the Study of Complex Systems and Associate Director of MMPEI), and Irving Salmeen (retired chemist from Ford Motor research and Research Scientist, CSCS). Simon and Salmeen were part of a College of LS&A planning group for a “theme semester” focused on America’s energy future, scheduled for fall 2008; Penner-Hahn is the point person for that initiative, on behalf of Dean Terrence J. McDonald. Ceccio and Was sought to implement a campus-wide initiative—

fostered in the main by VP for Research Stephen Forrest—to advance U-M’s leadership in alternative energy research, the point unit for which is to be MMPEI. These two campus initiatives were relatively disconnected, although Simon has been a key influence on both. (Simon also is a key leader of the ongoing CARSS SMART project, of which he was a founder, as noted in the December Self Assessment.)

Featherman proposed a one-day campus workshop to highlight these two initiatives and to leverage the momentum of each. Was and Simon collaborated with Featherman and CARSS in developing the workshop’s program, which took as its premise that Michigan’s comparative advantage in energy research should reflect its broad and deep assets in social science, rather than emerging from the natural sciences and engineering. The latter fields are also strong at U-M, but they are domains of greater strength and capacity elsewhere. Ironically, while Michigan possesses unique centers of excellence such as ISR and top-ranked departments of social and behavioral science in LS&A and many of the professional schools, its portfolio of projects and faculty manifestly working on energy-related topics, broadly construed, is modest in scope at best. Thus, Featherman proposed that the workshop pursue several logistical objectives aimed at advancing and consolidating a social science agenda on energy and stimulating interest in its intellectual and practical opportunities for social scientists to lead multi-disciplinary projects in partnership with engineers and natural scientists.

The all-day workshop, “Energy and the Social Sciences,” was held in mid-May and attended by roughly 120 campus faculty and graduate students as well as key campus leaders. About half of the participants were social scientists and a few humanists; the remainder, engineers and natural scientists. Simon, Salmeen, and Barry Rabe (political scientist and former dean, School of Natural Resources and Environment) each laid out different rationales for the role of social science in energy research and in research-informed policy debates on energy and climate change. Three ongoing campus projects, each led by social scientists but including input from engineering and natural science, presented their work and highlighted the key questions and approaches from social science that made these problem-inspired projects productive “drivers” of social science methods and theory. Finally, Was presented a programmatic vision of a diverse campus initiative on energy and invited active dialogue about the role of social science in it. MMPEI also announced, at the workshop, a call for proposals to seed the planning of collaborative projects to help realize this vision. The day ended with a dinner, attended by 50 campus leaders and (especially younger) faculty to talk about the workshop but also to discuss how the two initiatives—one from LS&A and another from OVPR—might leverage each other.

Following on these conversations, Simon, Salmeen and Featherman have continued to contemplate how CARSS might incubate a “social science and energy” project and through it, further catalyze a unique Michigan “niche” in energy. Fortuitously, Simon and others successfully bid for three new junior faculty slots to comprise a cluster hire in energy, in a campus-wide competition announced by President Coleman. Each hire would be in a different campus academic department/unit (e.g. political science, economics, psychology). With this cluster hire as a strategic objective, Featherman has proposed using the processes of searching, vetting and recruiting candidates as part of a structured exploration of the academic and practical values of social science in the broad energy agenda and of that agenda at Michigan. To accomplish this exploration CARSS could commission an initial “social science and energy

study group,” led by Simon, Salmeen and two or three other key faculty to develop a programmatic strategy and to define an agenda of monthly faculty luncheon discussions, workshops, guest lectures, and overview papers, and in doing so to invite into its strategy conversations additional key faculty and outside consultants. One aim of the programmatic strategy and the study group is a reconnaissance of the exciting social science “out there” that is being done and by whom but also of the gaps and missed opportunities for future social science exploration. And bearing in mind the bountiful social science resources and institutional assets at U-M (but not in energy), an additional aim is to view the “what is and who is doing it” and the “what could be done” assessments against the landscape of existing social science strengths. Successfully recruiting new faculty (especially junior faculty) to Michigan to “do energy” is more likely if prospective faculty are viewed as fertilizing, complementing, and benefitting what is here; and prospective faculty, especially junior faculty, are more likely to come to Michigan if they view the invitation as clearly and knowledgably supportive of their interdisciplinary work and rapid career development, if they see how they can leverage Michigan’s (not energy-related) social science assets to the advantage of their projects and careers. And so, as part of its broader reconnaissance and agenda, the study group (in collaboration with academic units participating in the cluster hire) would invite younger “energy scholars” to visit the campus and into the local energy conversation as part of the recruitment and vetting (on both sides) processes.

Further into the future, and assuming CARSS is still operational, the cluster hires might form a nucleus of resident “energy fellows,” complemented by additional Michigan faculty from an evolved “study group” and by off-campus (occasional) visitors. CARSS has as yet to realize its original vision of an advanced study center with rotating one-year special project themes. Perhaps in league with the resources of the Michigan Memorial Phoenix Energy Institute, and a high-level campus initiative on energy, the social science and energy theme might provide CARSS a partnership opportunity for experimenting with this capacity. The residential year and the designation of a cohort of energy fellows would also be vehicles for building critical mass and mobilizing visibility and momentum behind the realization of Michigan as a center of excellence on energy.

Financial Update

The December Self-Assessment Report summarized CARSS’ business model and underscored the non-linear, five-to-seven-year cyclical pattern that could be expected in its operating budgets (see pp. 47-51 in the December report). Normally, as a new unit’s progress is evaluated at a major research university, one expects to see a rising trajectory in these annual budgets, perhaps after a short start-up period of two to three years, extramural funding becoming an ever larger fraction of total sources, and eventually a unit becoming self-supporting in large measure (thus allowing the university to shift its start-up resources to other new ventures). Whether that customary model is appropriate or normative for incubators such as CARSS is open to debate; in the CARSS business model, projects that can stand on their own feet financially are handed off to other units as CARSS turns to incubate other nascent project ideas.

That having been said, the five years of CARSS' operating budgets through FY07-08 in Table 1 appear to follow a more customary ascending trajectory. (Table 1 is a revision of the similar table on p.p. 49-50 of the December report, reporting FY07-08 final numbers and providing a projected FY08-09 budget.) CABSS/CARSS began with \$300,000 in FY03-04, doubled that total over the next three years, and then nearly doubled its total sources to roughly \$1.3 million in the recently completed FY07-08 and in projections for the current and perhaps final fiscal year. While its total uses also rose as project activities proliferated and matured, CARSS finished each fiscal year with a substantial carry-over balance, as a safety margin against the unpredictability of securing extramural seed monies for its "risky" projects still in incubation. But the success of obtaining those outside monies has been clear: despite rising expenditures from year to year, the carry-over balances remained at about \$500,000 in three years of FY04-05 through 06-07 and then grew markedly to over \$800,000 at the end of FY07-08. Project-specific sources of funding (all extramural) grew from \$50,000 in FY05-06 to over \$600,000 in FY07-08. Annual program support from the Office of the Provost (excluding Featherman's salary and fringe benefits) was typically \$350,000, and by FY07-08, the total of outside support made possible by that investment was nearly double that sum in that fiscal year (\$622,709 in direct costs and \$77,050 in indirect cost recovery).

Over the first five years of CARSS' history (again excluding Featherman's salary and fringe benefits), the Provost invested \$1.8 million in program (from Table 1). Over the same period, CARSS and its projects have generated nearly \$2.4 million in outside grants and awards. Not all of these monies have flowed directly to CARSS itself, as evident from Table 2 (an update of the same tabulation from the December report). For example, in FY06-07 awards flowing directly to CARSS totaled \$150,000, but the same projects generated awards to other U-M units totaling \$608,485; the equivalent figures for the most recent fiscal year (FY08) were \$451,950 and \$118,569. And over the five years, CARSS administered a total of \$727,450 in extramural awards while \$1,659,133 flowed to other campus units from CARSS' projects. In effect CARSS generated nearly twice the volume of sponsored research activity for others from its projects as it did for itself.

The logic of that pattern is wholly consistent with an incubator that seeks to incentivize faculty from broadly diverse campus units—and their deans and directors—to volunteer "on speculation" their time, talent and faculty assets during the early incubation phase of risky projects that ordinarily do not emerge from the business models of academic and conventional research units. An extension of that same logic, however, means that once projects gain maturity and competitive advantage as bold, novel ventures—once they can compete for sustaining extramural funding from various (and perhaps novel) sources—their financial legacies devolve to other units and not to CARSS. And so the overall CARSS financial history of the past five years—a rising trajectory that one is accustomed to seeing in "successful" start-up units—is not likely to be sustained by the nature of CARSS' business model, but similar trajectories could be repeated in five-to-seven year cycles or phases.

As CARSS looks toward the end of FY08-09, the current fiscal year, several observations are worth noting about its financial prospects. First, the SMART project seems poised to be financially self-supporting if not reliably sustainable beyond a two or three year future. SMART's pace of incubation has generated greater extramural funding than any of the other

projects, at least to now. Over its five years, CARSS invested nearly \$250,000 in SMART, and in turn SMART has generated over \$500,000 in additional “incubation” awards and indirect cost recovery administered by CARSS (see Table 3, an update of the same tabulation from December). From extramural sources SMART also generated an additional \$932,000 for other campus units—principally for the Taubman College of Architecture and Urban Planning—most emerging in the past two fiscal years (see Table 2, lower panel). While SMART’s most ambitious aspiration to establish an NSF-funded Science and Technology Center, based at U-M’s College of Engineering, is in a very preliminary local competition, it proposes a \$20 million budget over five years. In any event, when SMART migrates administratively to another campus unit, probably by the end of this fiscal year, CARSS will “lose” a highly productive project from its financial portfolio.

Second, the SRB project is likely to rise as the financially successful successor to SMART in this portfolio. To date, CARSS has invested about \$316,000 in SRB, which has generated \$215,000 in further incubation resources administered by CARSS (Table 3), but none as yet for other campus units. The latter is likely to change near the end of FY08-09 as at least two initial proposals (in draft) are submitted in October 2008 to the Institute for Educational Sciences (IES). One of these will be administered at U-M’s Center for Human Growth and Development in collaboration with ISR, totaling \$1.5 million for three years, if awarded. A second, of similar fiscal magnitude, would be administered at NYU in collaboration with Harvard. A set of proposals for bridging monies (prior to any start of IES funding) are being submitted to the Kellogg and Spencer Foundations in late summer of 2008, to be administered at CARSS, totaling \$300,000. Assuming the success of these proposals for the first-phase empirical work of SRB, that portion of SRB would be handed off to CHGD and ISR after June 2009. What would remain on the financial books of CARSS—assuming a future beyond June 2009—is the further incubation of the second and third intervention strategies of SRB, at fairly low budgets and based on additional support from extramural sources. So just at the moment when SRB seems poised to turn a financial corner, as has SMART, it would be handed off.

Last, CARSS is on track to finish perhaps its final fiscal year with an operating surplus projected—still early in this year—at about \$860,000. For the record, some of those monies—about \$125,000—have been earmarked by Featherman for SMART from SMART-generated indirect cost recovery. That could be part of the incentive package, when discussions evolve with one or more potential new administrative homes for SMART. The remainder of this putative carry-over, however, could be used to finance transition costs of CARSS personnel to other units or to extend, for perhaps one more year, most of its key employees. On a much more positive assumption about CARSS’ future, this “nest egg” could jump start some new project explorations, such as suggested above in regard to the topic of America’s energy challenge and the social sciences. And it still might provide sufficient flexibility to hire a junior-level institutional development officer. This position, and the administrative authority to use it flexibly and productively for CARSS’ direct benefit, is an essential ingredient for a financial future of CARSS. While not replacing a continuing need for seed monies—venture capital—from U-M at some level going forward, a vigorous, authorized capacity to raise outside venture capital is essential to a sustainable CARSS.

Table 1 (Revised 7 08)

**Center for Advancing Research and Solutions for Society
Financial History**

	<u>FY 03-04</u>	<u>FY 04-05</u>	<u>FY 05-06</u>	<u>FY 06-07</u>	<u>FY 07-08</u>	<u>FY 08-09</u> (Projected)
<u>Sources - Core</u>						
Office of Provost Program	300,000	450,000	350,000	350,000	350,000	350,000
Provost Commit Director - Base & Frg	0	237,297	302,261	301,717	315,635	324,564
Provost Commit - Assoc Director	0	46,020	48,779	28,082	0	0
Other (UIP; IDC)	0	0	11,132	23,670	77,050	129,000
Sub-total	300,000	733,317	712,172	703,469	742,685	803,564
<u>Sources - Project Specific</u>						
SRB - (R Sage, Spencer, Hewlett, IES)	0	0	50,000	17,739	168,603	252,000
SMART - (Ford, GESI, Erb, EPA,Shell)	0	0	0	27,506	454,106	217,100
Energy Future	0	0	0	0	0	10,000
Sub-total	0	0	50,000	45,245	622,709	469,100
TOTAL SOURCES	300,000	733,317	762,172	748,714	1,365,394	1,272,664
<u>Uses - Administration</u>						
Director	0	58,599	207,285	216,825	205,256	267,792
Associate Director	0	59,482	55,858	29,838	0	0
Administrative Support	3,551	11,693	31,991	36,999	44,076	38,937
SHV, Frg/Ben	289	61,786	159,801	190,365	189,769	199,794
Consultants, Development Officer	36,957	36,500	16,260	0	0	75,000
Unemployment Compensation	0	0	0	9,365	0	0
Sub-total	40,797	228,059	471,195	483,392	439,101	581,522
<u>Space/Facilities/Furnishings</u>						
Rent Space	0	23,400	58,069	60,503	59,897	60,504
Computing Equip, Support, Software	0	1,881	9,581	3,191	5,691	6,000
ISR Adm Overhead Charge	0	0	0	50,114	50,174	61,942
Furnishings	0	24,675	6,504	0	0	0
Office Operations	9,315	14,331	16,682	10,605	9,819	15,400
Travel & Hosting	7,927	13,495	19,703	17,133	8,678	6,000
Sub-total	17,242	77,782	110,539	141,546	134,259	149,846
<u>Inactive Projects:</u>						
Global Corporation	38,000	0	0	0	(12,922)	0
Terrorism	0	0	8,964	0	0	0
Sub-total	38,000	0	8,964	0	(12,922)	0

	<u>FY 03-04</u>	<u>FY 04-05</u>	<u>FY 05-06</u>	<u>FY 06-07</u>	<u>FY 07-08</u>	<u>FY 08-09</u> (Projected)
Active Projects:						
<u>SMART</u>						
Project Director (90%)	0	0	34,640	59,740	66,036	75,197
Program Development Manager	0	0	0	9,121	11,543	0
Project Coordinator (20%)	0	0	0	0	0	9,734
Student Development Work	0	0	0	0	33,277	0
Analysis & Pilot Development	50,000	75,000	0	0	40,310	103,827
Miscellaneous Expenses	0	0	4,757	5,701	3,221	25,000
IDC	0	0	0	0	51,786	85,526
Sub-total	50,000	75,000	39,397	74,562	206,173	299,284
 <u>School Reform & Beyond</u>						
Research Specialist Lead (35%)	0	0	0	32,446	73,403	11,194
Project Development Manager	0	0	14,712	13,681	50,469	67,925
COO (50%)	0	0	0	0	15,889	52,000
Planning meetings	0	0	49,999	36,494	0	43,000
2-Workshops/2-Design Mtgs	0	0	0	0	70,192	43,000
Miscellaneous Expenses	0	0	0	6,056	9,293	43,000
Sub-total	0	0	64,711	88,677	219,246	260,119
 <u>DASI</u>						
Conference, Mtgs, Staff	0	0	0	7,700	0	17,000
Sub-total	0	0	0	7,700	0	17,000
 <u>Energy and Social Science</u>						
	0	0	0	0	2,755	10,000
TOTAL USES	146,039	380,842	694,806	795,877	995,857	1,317,771
Sources less Uses	153,961	352,475	67,366	(47,163)	369,537	(45,107)
Carry over from prior FY	(3,538)	150,423	502,898	570,264	523,101	892,638
Net balance carry over to future FY	\$ 150,423	\$ 502,898	\$ 570,264	\$ 523,101	\$ 892,638	\$ 847,531

Table 2 (Revised July 2008)
AWARDS AND GRANTS GENERATED BY CARSS

Sponsored Funds Awarded Directly to CARSS

<u>Funding Source</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>
Erb Institute	0	0	0	0	16,950
Ford Motor Company	0	0	75,000	150,000	250,000
Harvard Loeb Alumni Award Supporting Speaker Series	0	0	500	0	0
Hewlett Foundation	0	0	0	0	165,000
Shell Petroleum	0	0	0	0	20,000
Spencer Foundation	0	0	50,000	0	0
Sub-total	0	0	125,500	150,000	451,950
Number of Awards	0	0	3	1	5

Sponsored Funds Awarded to Other Units from CARSS' Projects

<u>Administrative Unit</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>
Center for Complex Systems (CSCS):					
NSF	0	25,000	124,569	0	0
School Natural Resources and Environment (SNRE):					
Alcan & FMC Leadership Development for Sustainable Mobility	0	25,000	0	0	0
BP/North American Biofuels Systems Modeling	0	0	30,000	0	0
Taubman College of Architecture & Urban Planning (TCAUP):					
EPA-Star-H1	0	0	0	300,000	0
Federal Hwy Admin Access Research	0	0	0	0	118,569
GESI	0	0	0	145,952	0
US Dept of Transportation	0	0	0	162,533	0
Sub-total	0	50,000	154,569	608,485	118,569
Number of Awards	0	2	2	3	1
TOTAL CARSS-GENERATED FUNDS	0	50,000	280,069	758,485	570,519

Table 3 (Revised July 2008)

**FOUR-YEAR INCUBATION INVESTMENTS
BY PROJECT AND SOURCE**

SOURCES	P R O J E C T S				
	Global Corp	Terrorism	DASI	SMART	SRB
CARSS	25,000	8,964	24,700	248,272	315,941
Extramural and Administered by CARSS	0	0	0	556,916	215,000
Total	25,000	8,964	24,700	805,188	530,941
% CARSS Investment	100%	100%	100%	31%	60%