

BOARD MEETING AGENDA
State Investment Board Room
2100 Evergreen Park Drive SW, Olympia
March 22, 2007

8:15 **Continental Breakfast – HECB Members**
No official business will be conducted.

8:45 **Welcome and Introductions**
Bill Grinstein, HECB chair

Approval of the February 22, 2007 Meeting Minutes **1**

Consent item: Degree Program Approval **2**
 • **UWT, Master of Education**
 Resolution 07-05

Strategic Master Plan for Higher Education Panel Discussions **3**
Ann Daley, executive director, will introduce legislators, business and public education leaders to discuss policy issues that will impact higher education in the next 10 years.

9:00 **Higher Education Strategic Planning**
 • Rep. Fred Jarrett, ranking member of the House Transportation Committee and a member of the House Higher Education Committee and Appropriations Subcommittee on Education.
 • Rep. Skip Priest, ranking minority member of the House Education and Appropriations committees and a member of the Appropriations Subcommittee on Education.

9:45 **The Return on Education Investments**
 • Paul Sommers, Ph.D., University of Seattle, founder of the Center for Metropolitan Studies
 • Bill Chance, executive officer of the Northwest Education Research Center

10:30 **Higher Education and Economic Prosperity**
 • Marc Frazer, vice president, Washington Roundtable
 • Susannah Malarkey, executive director, Technology Alliance (invited)
 • Bill McSherry and/or David Tang, Prosperity Partnership (invited)

February 2007

Draft minutes of February 2007 meeting

HECB Members Present:

Mr. Bill Grinstein, chair
Mr. Jesus Hernandez, vice chair
Mr. Charley Bingham
Mr. Gene Colin
Ms. Roberta Greene
Dr. Sam Smith
Mr. Jonathan Sprouffske

Welcome and Introductions

HECB chair Bill Grinstein began by welcoming everyone to the meeting and asked audience members to introduce themselves. Grinstein then welcomed Ann Daley, the HECB's new executive director.

Action: minutes of January, 2007 meeting approved

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| <p>Gene Colin moved to approve the minutes of the January 25, 2007 meeting; Roberta Greene seconded the motion, which was unanimously approved.</p> |
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2008 Strategic Master Plan for Higher Education

Grinstein said that by statute, the HECB is required to begin revision of its Strategic Master Plan (SMP) this year. Transparency, participation, and engagement will be the three hallmarks of the process, with a strong focus on outcomes and goals. It's important to understand that this process is an opportunity to work with students and institutions, Grinstein said.

Daley said this meeting launches the development of the interim SMP. The plan will be updated and modified, and ultimately submitted to the Legislature in December 2007 for consideration during the 2008 legislative session. Several panels have been invited to speak to the board for guidance on issues contained in the SMP. Senator Paull Shin and Representative Deb Wallace, who respectively chair the Senate and House Higher Education Committees, will comprise the first panel. Second, representatives of Washington Learns will brief the board on the governor's commitment to improve higher education by creating a seamless education system. The third panel is comprised of institutional representatives.

Panel 1: Senator Paull Shin, Chair, Senate Higher Education Committee and Representative Deb Wallace, Chair, House Higher Education Committee.

Wallace began by expressing pleasure at working on higher education under Governor Gregoire's leadership; this is the right time to address these issues, she said. The HECB and SMP are important to the future of education in Washington, which is why extending its range from four to 10 years is a good idea. Some legislators agree there is a need for a long-range investment in higher education. Wallace urged the board to be innovative in thinking of ways to offer educational opportunities to students. Access to education is becoming more important than ever, and is supported by tuition policy, financial aid policy, and state subsidy. Wallace then introduced the idea of "strategic investment." For higher education to be successful, there must be consensus in what is needed: access, accountability, and workforce training are priorities. She suggested that a study to determine the cost of education could help guide the state's investment. In addition, Wallace said that a capacity study could determine which facilities and technology are needed.

Shin said he considers the board members to be planners for the future. A stable source of funding is critical for today's education needs. Political stability comes from economic stability. The state is facing great global challenges, and needs to stay competitive on a global scale. Today's students face huge tuition fees and debt as hurdles to higher education. In Europe, governments provide postsecondary education for free because they feel it is a long-term investment. In the U.S., some students must work full-time to finance their education while they also attend school full-time. In today's marketplace, 67 percent of goods available to U.S. consumers are made in Asia; if we don't invest in higher education, the U.S. and Washington state will fall behind. Investment in higher education will bring huge dividends. Each student is important to this state.

Charley Bingham said that as a citizen, he is struck with the suggestion that the cost of education is known. As a democracy, we deal with problems reactively, as they arise, instead of taking a preventive approach to them. However, the cost to the state of imprisoning people and treating drug addicts – even the lost income of someone who is insufficiently educated, should be tabulated when one considers the cost of education. It's too easy not to fund education because the consequences are not obvious. It's important for the state to understand that education is an investment that will save expenditures – in incarceration costs and drug treatment programs, for example – down the road. The number of children in Washington who don't finish high school and don't receive quality health care is unacceptable. The state needs to provide optimal care and education to every child. Bingham asked the panel how to gain acceptance of the idea of funding education as a long-term investment.

Wallace replied that Bingham's point was an excellent one, and suggested that the SMP address that by establishing parallels between the costs of the social care system and education funding. However, legislators won't accept the SMP if there is no hard data to back up the vision. In addition, the "five corners," comprised of the governor and majority and minority leaders from both the House and Senate, should be convened to review the state of education in general and the SMP in particular.

Shin added that education is a cure for poverty; poor people lose self-respect and self-esteem when they are compelled to beg to eke out a living. If we provide educational opportunities for poor people, we restore their self-respect as well as provide them with the chance to pull themselves out of poverty.

Colin thanked Wallace and Shin for their remarks, and noted that if they were to broadcast those views regarding the SMP, citizens would demand that the HECB do what they say. He also stated his reluctance at working on a project if its outcome would not be useful in future policy planning for the Legislature and institutions, and asked what should be included in the SMP to make sure it's a valuable document.

Shin replied that a lot of students are given dignity through their education, and feel ready to contribute as citizens once they have an opportunity to succeed. Furthermore, Governor Gregoire is innovative; she knows how to delegate and she knows how to challenge. She's an action person: one example is the GET Ready for Math and Science Scholarship, a public-private partnership to increase accessibility and affordability – and thus opportunity – in a high-demand field.

Wallace added that it's the Legislature's responsibility to use the document effectively. To maximize the impact of the SMP on the Legislature, it must be brutally honest in its statistics, so it can be used as a resource and not regarded as the product of politicking. In addition, it's important to recognize that the HECB is at the end of the education pipeline; it needs to reach back and work with the Office of the Superintendent of Public Instruction (OSPI) and the Department of Early Learning in establishing goals.

Grinstein noted that many of the members of the board are engaged in P-12 issues outside of the board, and their contribution is valuable in this regard.

Colin asked if the HECB could have access to the House and Senate Higher Education Committees' staff members, so as to obtain firsthand knowledge of what is happening at the legislative level.

Hernandez thanked the legislators for their passion and dedication, and addressed the issue of parenting. He noted that the majority of successful students have parents who know how to navigate the system and can therefore be strong and effective advocates; unsuccessful students often lack that, yet there is no system in place to address that dearth. If we continue to neglect the need for children's advocates, costs in the criminal justice system and drug rehabilitation will continue to rise.

Shin agreed with Hernandez's statement, and added that the cheapest – and most effective – means of student success is for parents to love their children.

Panel 2: Jone Bosworth, director, Department of Early Learning; Terry Bergeson, state Superintendent of Public Instruction; Denny Heck, chair, Washington Learns Higher Education Committee; Deb Merle, higher education policy advisor, Governor's Office.

Bosworth thanked the members of the board for inviting her to join the panel. She said Governor Gregoire has made early learning a priority, and there is currently a public-private partnership in place to elevate the focus of early learning and better coordinate with other agencies to ensure seamlessness throughout the system. She said recent studies show that 50 percent of children start kindergarten unprepared. The Department of Early Learning's goal is to support parents – as well as childcare providers and educators, in raising their children; to ensure accessibility at the postsecondary level for those providers and teachers in order to increase their educational level; and to work in partnership with OSPI, the HECB, and others to ensure that the entire education system is enhanced. The department also intends to streamline the pre-kindergarten system to ensure that children all over the state receive the same quality of education.

Bergeson thanked the board, and said the K-12 system is unwieldy by virtue of its size. In the early 1990s, the Legislature passed an education reform law that engendered major changes in the system. There has been progress, but there's still a long way to go. There are major disparities, and what OSPI does well and doesn't do well is obvious to everyone. As Rep. Wallace said, having real, usable numbers in the SMP will make a difference in how education is considered. It's important for different agencies to work together in shaping the future of education in Washington. The state is at a critical turning point: The WASL must stay, but it should be used as a building block toward preparation for school and work rather than an end-point.

Merle began by saying that the HECB sells itself short when it says that others don't pay attention to the SMP. Many recommendations in the 2004 SMP have found their way into legislation, budgets, and accountability measures.

The Washington Learns report and the SMP have the same overall theme: the primary goal is to educate more students. Other issues that need to be covered include:

- how to create an ongoing, predictable source of funding for higher education;
- a long-term enrollment and degree-completion policy;
- budget provisos that tie funding to results;
- alternative delivery systems, such as online courses;
- aligning early learning, K-12, and higher education
- simplifying financial aid programs; and
- meeting the needs of place-bound students all over the state.

Merle said a weakness of the 2004 SMP is that it is so broad, it is easy to claim that policies – as presented by institutions, for example – are perfectly aligned with it.

Heck said that the critical issues in higher education are:

- In the short term, the state is in the midst of an unprecedented run-up in revenue, which provides an opportunity to better fund higher education. This doesn't happen very often, and will not last.
- In the midterm, there will be another downturn in the economy, which will result in a decrease in the rate of revenue growth. The SMP is an opportunity for the higher education community to work together more closely and form a coalition to present a unified front, so as to come together behind a single funding policy. This would provide a framework for higher education funding within which to have a debate, as well as a healthy foundation for the future.
- In the long term, it's nothing short of a moral imperative to provide higher education opportunities for traditionally underserved populations.

Grinstein asked the panel how they saw the role of the P-20 Council, considering the breadth of anticipated legislative involvement, notably in the form of the "five corners." He asked if the council is a vehicle for accomplishing common objectives.

Bergeson replied that the council will work only if the key players are at the table and discussing four or five measurable indicators. Merle added that the P-20 Council's role is to measure progress toward the goals set in Washington Learns.

Bingham said that successful companies have ethical and economic parameters that don't change with the environment. If the state wants to educate its children, it will have to commit to consistent funding that can weather economic cycles. It's not acceptable for education funding to fluctuate with the state of the economy.

Heck added that this cycle's rainy day fund differs from past funds in that it now requires a two-thirds majority in the Legislature to dip into it; in the past a simple majority was enough. This will help ensure that it is not spent frivolously.

At Daley's request, Bosworth outlined the role of her department and how she works with other agencies. She said that if you don't get to kids young, they won't be able to participate meaningfully in the economy and the democracy. Right now in Washington there are varying levels of quality with respect to early education teachers. The Department of Early Learning wants to increase teacher quality all over the state, increase safety, and work on licensing. The department would like to link to the work of OSPI (especially as it relates to kindergarten), and raise quality through a rating system tied to financial incentives. The department has partnered with Thrive by Five (which has committed \$100 million over the next 10 years around early learning) to set standards around early learning and establish developmental benchmarks to make sure kids get what they need to be ready for kindergarten. The department also wants to provide higher education training to providers – specifically those whose first language is not English.

Greene applauded Bosworth for her passion. She said the current climate causes different education agencies to fight over resources, and applauded the effort to get key leaders into the same room to make decisions.

Smith praised the level of cooperation between the state and Thrive by Five, and added that the reason the partnership is so successful is that it is system-wide. He asked about the possibility of establishing system-wide public-private partnerships in higher education. Heck replied that research universities are already getting a lot of private money for specific projects, and that there are many public-private partnerships at the institutional level, but nothing has been set up system-wide, although that would be a good idea.

In response to Bingham's question regarding alternative learning approaches, Smith said that more than 3.5 million students are currently taking an online course, and that number is growing by 22 percent annually. Grinstein added that one of the board's concerns regarding the Skagit, Island, and Snohomish counties project was about technology: the board didn't feel it could approve a project that didn't meet the authorizing legislation's technology requirement.

Bergeson stressed the importance of Washington's education agencies figuring out their role in enhancing the best of what's going on. They must decide which indicators are of the greatest value to the agencies and then, using these indicators, inform the Legislature.

Grinstein finished by saying that another governor's proposal – The Next Washington – asks the HECB, the Economic Development Commission, the State Board for Community and Technical Colleges (SBCTC), and the Workforce Training and Education Coordinating Board (WTECB) to work together to provide early learning teachers. Grinstein said the HECB is committed to taking into account The Next Washington when drafting its SMP.

Panel 3: Andy Bodman, Western Washington University provost and Council of Presidents representative; Charlie Earl, SBCTC executive director; Don Bennett, WTECB interim executive director; and Violet Boyer, president and CEO of the Independent Colleges of Washington.

Bodman offered the following guidance for the 2008 SMP:

- The SMP should stress the fact that education is the best possible investment the state can make; the return on investment is astonishingly high.
- The SMP should be more direct about the state's key goals for higher education, which are constantly discussed but are not written down anywhere:
 - Access to higher education for every Washington resident;
 - Seamlessness between education systems;
 - Affordability: tuition, financial aid, and state subsidy, if linked coherently, could improve affordability.
- Targeting state resources: there is no discussion around who should be subsidized and by how much.
- Accountability.

Washington is currently facing three major challenges:

1. The attainment gap – in terms of the number of degrees conferred to Washington residents;
2. The achievement gap, and the fact that higher education is at the end of the education pipeline. We depend on what happens elsewhere in the public education system. Twenty percent of 12th graders are from racial and ethnic minority groups, yet 33.3 percent of first graders are minority students. In the absence of a support system, participation rates drop dramatically. The SMP must respond to the substantial public pressure to ensure that every student has a chance at higher education. The GET program is great for the middle class, and it does provide them with protection from tuition inflation. However, it doesn't target traditionally underserved populations. The state should be buying massive amounts of GET credits to help finance low-income students' education.
3. The funding gap: Prisons are much more heavily subsidized than universities. The current SMP emphasizes the benefits of higher education to the individual, rather than to the public. This reinforces the growing perception that higher education is an expensive luxury, and encourages public dis-investment.

It's important to remember that the system is for the students. The current SMP incorrectly assumes that we need to produce more high-demand degrees to serve business, and doesn't leave enough room for social workers, teachers, and public-service employees.

Regarding benefits to private individuals versus benefits to the public, Grinstein added that there is a cost to not educating a society, and asked Bodman to elaborate. Bodman replied that he is concerned that the question is being framed into what the individual gets out of an education, and that not enough emphasis is placed on the benefits to the public: we must frame education as a return on investment. A study conducted by the Washington Institute for Public Policy shows that incarceration rates decrease as education levels increase.

Daley added that the Washington Learns steering committee also explored the question of return on investment. Paul Sommers, professor of economics at Seattle University, was commissioned to write a paper on the topic, and his conclusions were quite positive.

Bingham said a community with a high rate of bachelor's degrees has a higher overall income level, even for members of the community who do not have a degree. Civility is higher and policing costs are significantly lower. Bingham said it's important to address the public benefits of higher education because they're so easy to forget.

Earl said he agreed with Bodman's presentation, and added that it's important for the SMP to be firmly centered on education need. Currently demand – whether it be local or global, economic or social – is increasing, while the population is aging and ethnically evolving and income levels are shifting. If something is not done soon, knowledge and skills will continue to fall against the rising demand. The state must significantly improve its performance in participation rates, affordability, and student attainment. Earl said we have to take a proactive approach and go find students instead of waiting for them to come find us.

Bennett said that Governor Gregoire had asked him to lead the WTECB's board through self-analysis to define its role as a unique partnership between businesses, labor, and workforce training programs in K-12 as well as higher education. He urged the HECB to be more inclusive in its definition of higher education, thereby adding value to the dignity of work. It's important to remember that there are many entry points for education and training, and traditional approaches are no longer sufficient.

Hernandez noted that most high school students, if asked, will say they plan on going to college. However, less than half end up enrolling straight out of high school. There are opportunities outside of college – trades such as plumbing come to mind, he said – but the state isn't doing a good job of offering alternate opportunities to students.

Bennett replied that the answer to this problem lies in redefining success, and that there are many fulfilling and financially rewarding careers available to students who choose not to go to college. Hernandez added that as long as we're not presenting those options as possibilities, we're not serving the students well. Earl added that new research shows that a large percentage of the population has had some college by age 30, and that the greatest factor in whether people attend college straight out of high school or later in life is income level.

Boyer listed the main issues the Independent Colleges of Washington would like addressed:

- Equity: underserved populations are not likely to apply to private institutions. Continuing strong financial aid programs is important. To a low-income person, it doesn't matter how low tuition is: it's still too high.
- Focus on students: we sometimes tend to focus on turf. Diversity of opportunity increases the likelihood of student success; public and private institutions must collaborate in training for current jobs and providing education for future jobs.
- Quality: more is not better, if it's done cheaply. Education must be of high quality to benefit students. Expanding enrollment is not a positive thing if it results in a saturated system.
- Focusing more on outcomes will allow the state to be clearer about the message and increase the likelihood of understanding and support – both from the public and from the Legislature.

For a number of reasons, the educational system is currently Balkanized, and students are the first victims of this. Leaders must work together to return the focus to students and adopt a more holistic view toward education.

Grinstein noted that a common definition of “high demand” is needed. There is currently an informal group working on this; it's going to be an important part of the SMP planning process.

Bingham suggested asking staff to come up with a definition of higher education that reflects the breadth of responsibility the HECB has.

Greene said that much of what was said at the meeting would lend itself to solutions to the problems currently being addressed. Better definitions for high demand and for higher education

so as to highlight the benefit to the public and defining student success to be more holistic would be the biggest steps in writing the SMP. She said the panels have given excellent suggestions; now we need to generate enthusiasm.

Legislative Update

Chris Thompson, HECB director of university and governmental relations, provided an update of current higher education legislation. Thompson said there's a new structure in the House around fiscal committee work, with a couple of new subcommittees. Legislators are talking about releasing their budget proposals one month earlier than in the past.

Washington Learns

- SB 5098 – Washington Learns scholarship program: was passed by the Senate Higher Education Committee; a hearing is scheduled in the Senate Ways and Means Committee. Some “sticker shock” occurred around estimated costs, so changes are expected.
- HB 1779/SB 5555 – GET ready for math and science scholarship: amendments were added, which would provide more flexibility in administration and in selecting which courses and programs would be eligible. Passed both the Senate and House Higher Education Committees; hearings are scheduled in the Senate Ways and Means and House Appropriations Committees.
- SB 5806/HB 1882 – Tuition policy: has passed the Senate Higher Education Committee, scheduled to be heard in the Senate Ways and Means Committee. Hearing scheduled in the House Higher Education Committee.
- HB 1881/SHB1883/SB5855 – Changes to the HECB: Passed the Senate Higher Education Committee, sent to the Senate Rules Committee. Heard in the House Higher Education Committee, scheduled for action.

Academic Planning

- SB 5322 – Snohomish, Island, Skagit Counties: has passed the Senate Higher Education Committee; scheduled for public hearing in the House Higher Education Committee.
- SB 5978/HB2295 – Kitsap/Olympic higher education needs: has passed the Senate Higher Education Committee; hearing scheduled in the House Higher Education Committee.

Access:

- SHB 2072 – Access for students. In addition to capping tuition increases at 7 percent annually, the bill would direct the Joint Legislative Audit and Review Committee (JLARC) to study instructional costs and capital facilities; based on the results of the study, the state would adopt a goal of per-student funding.

Accountability:

- HB 2051 – Consumer report card: expands HECB work on cost study; requires freshman and senior assessment.

Other:

- HB 2082 – GET and agricultural employees: would award GET units to qualifying students who work in agriculture. Has passed House Higher Education Committee and been forwarded to the House Appropriations Committee.
- SB 5101 – Tuition waivers for teachers: the bill has been amended to limit its scope to teachers who hold or are seeking an endorsement or assignment in a state-identified shortage area. Has been passed by the Senate Higher Education Committee; is currently on the Senate Floor Calendar.

Appointment confirmations:

- The HECB appointments of Charley Bingham and Jonathan Sprouffske were heard January 31; placed on confirmation calendar for February 20.
- The appointments of Bill Grinstein and Ethelda Burke remain on the confirmation calendar.

Daley added that bills have not yet undergone any fiscal screening, and that all legislation is still very much up in the air. In response to Grinstein's question, she said there is not, as yet, money set aside to fund staffing of the Kitsap/Olympic Counties study, but that a proviso is being added.

The House budget proposal is expected to be released in the next few days. There is no date set for unveiling the Senate budget. As budgets are released, they are reconciled with the governor's proposal. The budget is typically one of the last items to pass during the legislative session.

Report of the Education Committee

Sam Smith, chair

Key components of a Web-based student advising system

Andi Smith, HECB associate director, Kathy Allen, president of The Connections Group, and Dave Stanley, AcademyOne manager of implementation, presented. Smith said one of the reasons for a comprehensive online student advising system is to give students a clear path all the way from high school to a bachelor's degree. To best do this, the HECB hired the Connections Group, which conducted focus groups throughout the state to better understand the needs of students, staff, faculty and administrators.

Allen began by stressing that the focus groups provided a qualitative – not quantitative – look at what people are thinking. The groups were convened to determine what students need and want, how they're going to go about getting their degree, and how they view the information that is available to them. Administrators were clearly enthused about the possibility of increasing the quality of their conversations with students as a result of this system's implementation, as well as the information they could disseminate to students. More than half of the students who participated in the focus groups have contacted the Connections Group and expressed their desire to stay informed on the project's progress and continued to offer advice.

Andi Smith provided an overview of the focus groups and their results. Six focus groups were held on two- and four-year campuses throughout the state; all groups were comprised of some combination of students and administrators. Students who had previously transferred from another institution also were present.

In response to Colin's question regarding the need for quantitative research, Allen said that at this point in the project, it's more important to determine what is needed rather than how many people feel that it is needed. For now, there is no anticipated need for a quantitative approach.

Smith said that students' higher education decisions are based on an unprecedented number of influences: cost, current employment, location, life and family concerns all come into play. Students receive advice from family and friends as well as from college administrators. They're very computer savvy, but impatient and easily frustrated with interfaces that require more than three steps. More and more students are swirling, i.e. adopting a "cafeteria approach" to education.

Staff are simultaneously excited and apprehensive about the project. They hope it will elevate the level of conversation they have with students, but they worry that it will increase their workload. As with everything, the best way to address concerns is constant communication. Both staff and students agreed that it would be better to launch the project sooner, albeit on a smaller scale, than to wait longer for something larger in scope. Furthermore, confidence in existing systems is rather low, which makes people doubtful as to the success of a new system.

In order to ensure its success, the Web-based student advising project must:

- Be user friendly, comprehensive, and accommodate courses' start and end dates;
- Have course equivalency tables;
- Have degree audits that would allow the system to accept individual courses as well as packages of courses;
- Have the capacity to link to existing degree-audit systems and the online advising system currently being developed by the SBCTC.

The feedback gathered from the focus groups was immediately incorporated into the Web-based student advising pilot project that AcademyOne is working on.

Stanley gave board members a tour of the Web-based student advising system in its current incarnation.

Institutions would have to set up their own systems – such as a common e-mail inbox – to ensure that all student requests received by the advising office are answered promptly. The system will not require a common student identifier, and would include private universities. The project also has the capability of being expanded to other states as well as online courses. It is only limited by the type of data that its users are willing to enter into it. Sprouffske stressed the importance of ensuring that the system indicate the semester or quarter during which courses are being offered.

The meeting was adjourned at 12:00 noon.

March 2007

DRAFT - Master of Education with Teacher Certification University of Washington Tacoma

Introduction

University of Washington Tacoma (UWT) seeks Higher Education Coordinating Board approval to offer a Master of Education with Teacher Certification (M.Ed.). The program represents a change in level of UWT's "5th year" post baccalaureate K-8 teacher certification to a graduate-level program culminating in the award of a Master degree of Education. The program would afford students the opportunity to earn a K-8 elementary education certification or a K-12 special education certification. UWT currently offers a Master's in Education designed to meet professional development needs of certified teachers. The proposed program would share core coursework with the existing program. The revised curriculum for the proposed program has already been approved by the appropriate committees at UWT and UW, and students are currently enrolled in the certification coursework. Pending approval, UWT would allow currently enrolled certification students and students who completed the post baccalaureate certificate program in 2005-2006, to complete the master's degree requirements.

Relationship to Institutional Role and Mission and the Strategic Master Plan

The program would draw on the strength of the established Master of Education and the post baccalaureate certificate program. The program is consistent with the role of UWT to provide access to baccalaureate, graduate, and professional education to the South Puget Sound region.

The program goals are consistent with the *Statewide Strategic Master Plan* goals of providing opportunities for students to earn degrees and responding to the state's economic needs. In particular, the program is responsive to the need to serve the local region with a high quality professional education program. The addition of a special education option is especially responsive to regional and statewide needs.

Program Need

The M.Ed. proposal responds to needs expressed by students, employers, and community stakeholders. The *State and Regional Needs Assessment* refers to the *2004 Educator Supply and Demand Report* produced by the Office of the Superintendent of Public Instruction (OSPI).

The report identifies needs within the teaching profession, both in terms of regional needs and in field of study. Special education is consistently identified as a field that is in demand and is listed among the shortage fields.

Student demand for the program was assessed through analysis of program inquiries received by the institution. Over a nine-month period, the institution received 59 inquiries for a combined master's and teacher certification program. Recruiters for the program also reported strong interest in a master's with certification program based on inquiries and feedback at career fairs and information sessions.

In addition, the program staff surveyed undergraduate students at UWT who were enrolled in the education minor as well as students enrolled in the post baccalaureate certificate program. The results of the surveys indicate strong support for a master level program.

Nearly one-half of the students enrolled in the minor who responded (45 percent), identified a master's degree as most important or very important, while 58 percent identified cost as a less, or least important. Students enrolled in the teacher certification program indicated even stronger support with 71 percent, stating they would have preferred a master's level program.

The proposal points out that while a master's level program would cost the students more, graduates would earn a higher starting salary and would make up the difference in just a few years.

Finally, the program developers also analyzed the training level of teachers in the local area compared to the state average. The proposal indicates that Central Puget Sound has the lowest percentage of teachers with advanced degrees. Only 42.1 percent of Tacoma's teachers hold an advanced degree compared to a state average of 53.7 percent.

The proposed program would not unnecessarily duplicate programs currently offered in Washington. UWT is one of only two schools currently offering only a post-baccalaureate teaching certificate option. Over the past 10 years, other similar programs have transitioned to master's level degree programs. While there are several public and private certificate programs in the region, the proposed program does not represent an addition that would create unnecessary duplication within the system. This is primarily because the proposal is a change in an existing program, rather than an addition to the program offerings in the area.

Program Description

The proposed degree program transitions an existing post baccalaureate certificate program into an option within the existing Master's of Education program; however, because this change would result in the award of a degree at a different level, the program is subject to HECB approval. Teacher certification programs are also subject to approval by the Professional Educator Standards Board (PESB); however, staff at the PESB have indicated that since the certificate program is already approved, a change of this nature would not require further approval by the PESB.

To be eligible for admission to the program, students would need to have completed a bachelor's degree from an accredited institution. In addition, students must complete a broad range of general education courses including coursework in writing, literature, math, life and physical science (including lab science) U.S. history, geography, art, child development, and technology. Finally, applicants must show they have spent 40 hours in a public school classroom within the past 5 years, and they must pass the Washington Educator Skills Test – Basic (WEST-B).

The program draws on coursework that is currently offered by the department. The curriculum of the post baccalaureate certificate program has been revised to meet the standards of a graduate program. All revisions to the curriculum have been reviewed and approved by the UWT and UW curriculum committees. In addition, students would be required to complete a 15-credit series of graduate core courses that are currently offered in the existing M.Ed. program. Finally, the students would complete culminating project and comprehensive examination.

Students would have an option of completing the requirements for K-8 certification or K-8 certification with a special education endorsement. The K-8 certificate program requires that the student complete a total of 78 credits to meet the requirements for certification and the master's degree. Students would enroll full-time for the first four quarters to complete the certificate requirements then could begin teaching while finishing up the master's degree requirements. The K-8 certification with special education option would require a total of 87 credits, requiring 5 quarters of full-time enrollment prior to certification. In addition to the degree requirements, students would also be required to pass the State Performance-Based Pedagogy Assessment in order to receive their teaching certificate.

As the program transitions to the graduate level, the department expects some growth in student FTE's. For the 2006-07 academic year, the program would enroll approximately 42 students. In subsequent years, the department expects to enroll 60 students per year. During the transition period, students who completed the post baccalaureate certificate program during the 2005-06 academic year would have the option of completing the master's degree by taking an 18-credit series of courses; which includes the M.Ed. core courses, a culminating project, and a comprehensive exam. Students wishing to take advantage of this option would need to begin the additional coursework by summer 2008 and complete the degree requirements by 2011.

Program implementation would draw on existing resources. The program would be offered using existing faculty, which includes 13 tenured and tenure track faculty. In addition, the program employs five staff (4.86 FTE) including an administrator, program coordinator, advisor, recruiter, office assistant, and a placement coordinator.

Students would be assessed throughout the program. Assessments would include a series of tests, starting prior to admission with the WEST-B and GRE's. Upon completion of the certificate requirements, students would need to pass the Washington State Performance-Based Pedagogy Assessment; and to receive content-based endorsements, students would need to pass the appropriate Praxis II Examination. During the program, students would be assessed within their individual courses based upon learning outcomes identified for those classes, and progress would be tracked. All coursework must be passed with a grade of 2.7 or higher, and a cumulative GPA of 3.0 is required to maintain satisfactory academic progress. Students would

also be evaluated on a range of exercises including papers, oral presentations, and group work. Students would complete a practicum, which would involve weekly and quarterly assessments by a field supervisor. Finally, the students would need to submit a portfolio for assessment that evidences their knowledge, skills, professionalism, and philosophy in teaching.

The program would also be assessed through a variety of mechanisms including assessment of coursework, fieldwork, and overall program success in achieving the program goals, responding to state and national standards, and internal consistency (alignment of coursework and fieldwork). In order to assess the program, information would be gathered from students, staff, faculty, field supervisors, alumni, practicing teachers, and principals. Data would be gathered through meetings, surveys, course evaluations, and other formal and informal sources.

Diversity

The M.Ed. program participates in diversity efforts of the University of Washington including system wide resources and local efforts on the Tacoma Campus. The program strives to employ a diverse faculty and staff. The current proposal is for a full-time degree program; however, the proposal indicates an interest in adding a part-time option to provide an opportunity to enroll para-educators from the region. Currently, the master's program enrolls 11 percent minority students and the teacher certification enrolls 8.5 percent minority students. However, 15 percent of the students in the undergraduate minor in education indicate minority status. The minor is relatively new, but may provide a good pathway to increase diversity as these students are encouraged to continue their studies.

External Review

The program was reviewed by two external experts Dr. Gail Schneider, Interim Associate Dean, Department of Administrative Leadership, University of Wisconsin, Milwaukee and Dr. Phyllis Edmondson, Professor and Dean Emerita, Portland State University.

Both reviewers indicated support for the proposal citing the strength of the faculty and the quality of the existing program.

Dr. Schneider expanded on the issue of program quality, pointing out that the requirements for the degree included core coursework typical of an M.Ed. degree program and that the requirements were well beyond the minimum for a master's degree. She also noted that in her work on a review committee for the program last year, students had indicated the program was rigorous and relevant to their needs as future teachers. Schneider cautioned that as the transition is implemented, it would be important to monitor enrollment and retention to ensure that the program maintains its ability to serve a diverse population of students; however, she also agreed with the proposal authors that the change would likely raise the profile of the program and benefit students.

Dr. Edmondson touched on many of the same issues adding that the change is consistent with national trends in education emphasizing graduate-level education for beginning teachers. Edmondson was more explicit, however, on the need to reach out to students in a pro-active manner. She pointed out that while the long-term financial benefits to teachers associated with the completion of a master's degree are clear, the increased cost of the program could pose a significant barrier for some students and that this may disproportionately affect students from underrepresented groups. Edmondson expressed a need for the faculty to develop a clear and specific action plan to recruit and support students who would bring diversity to the cohorts. Included within this plan, she suggests that financial assistance to students ought to be addressed to ensure that cost is not a barrier for entry and continuance in the program.

Program Costs

The program would enroll 71.4 FTE (42 headcount) students in the first year and the program would grow to 102 FTE (60 headcount) students by the second year and sustain that level of enrollment.

The program would be integrated as an option within the existing program structure and would require no additional faculty or administrative positions.

No capital improvements are required for program implementation.

Estimated cost in the first year of the program would be \$10,256 per FTE. This compares favorably with the average direct cost for graduate programs in education at the research universities, which according the 2005-06 draft HECB cost study, ranges between \$12,786 and \$16,534.

Staff Analysis

The proposed program would support the unique role and mission of the institution by drawing on the strengths of the existing faculty and providing students an opportunity to earn a degree in an area that is needed in the community, and it would support student growth and development.

The program responds to the *Strategic Master Plan's* goal of providing opportunities for students to earn degrees that respond to the economic needs of the state, as well as the needs and desires of students. The program is also consistent with needs identified in the *2005 Educator Supply and Demand Report* produced by OSPI.

The program draws on experienced and well-qualified faculty and an established curriculum. The proposal also lays out an assessment approach that clearly defines student outcomes. The proposed program offers an assessment system that will provide feedback from faculty, students, alumni, schools (employers), and others to allow for continuous improvement of the program.

The proposal indicates a commitment to recruit and retain a diverse faculty, staff, and student body. However, HECB staff is in agreement with the reviewers' suggestion that a more specific plan to monitor implementation of the program and develop an action plan to ensure continued success and improvement in recruitment and retention of underrepresented students would be critically important.

The program would not unnecessarily duplicate existing programs and would be offered at a reasonable cost.

Recommendation

Based on careful review of the program proposal and supplemental sources, HECB staff recommend approval of the Master of Education with Teacher Certification at the University of Washington Tacoma.

RESOLUTION NO. 07-05

WHEREAS, The University of Washington Tacoma proposes to offer a Master of Education with Teacher Certification; and

WHEREAS, The program represents a change in level of UWT's "5th year" post baccalaureate K-8 teacher certification to a graduate-level program culminating in the award of a Master's degree of Education; and

WHEREAS, The program would respond to a demonstrated need for a high quality program that is responsive to the needs of students entering the teaching profession; and

WHEREAS, The program draws on experienced and well-qualified faculty and an established curriculum; and

WHEREAS, The program would employ an assessment approach based upon clearly defined student outcomes; and

WHEREAS, The program has undergone an extensive development and review process and has received support from external experts; and

WHEREAS, The program would not unnecessarily duplicate exiting programs and the costs are reasonable;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the Master of Education with Teacher Certification at the University of Washington Tacoma, effective Fall 2006.

Adopted:

March 22, 2007

Attest:

Bill Grinstein, Chair

Betti Sheldon, Secretary

March 2007

Strategic Master Plan for Higher Education Panel Discussions

Ann Daley, executive director, will introduce legislators, representatives from the colleges and universities, public education leaders and state agency experts who will discuss policy issues that will impact higher education in the next 10 years.

PANEL DISCUSSIONS

As it continues its preparation for developing the Strategic Master Plan update for 2008, the board will hear presentations on the following subjects.

Higher Education Strategic Planning

- Rep. Fred Jarrett, ranking member of the House Transportation Committee and a member of the House Higher Education Committee and Appropriations Subcommittee on Education.
- Rep. Skip Priest, ranking minority member of the House Education and Appropriations committees and a member of the Appropriations Subcommittee on Education.

The Return on Education Investments

- Paul Sommers, Ph.D., University of Seattle, founder of the Center for Metropolitan Studies
- Bill Chance, executive officer of the Northwest Education Research Center

Higher Education and Economic Prosperity

- Mark Frazer, vice president, Washington Roundtable
- Susannah Malarkey, executive director, Technology Alliance
- Bill McSherry or David Tang, Prosperity Partnership

Each panel discussion will include time for public questions and comment.

BOARD MINI-RETREAT

The board will hold a mini-retreat on the master planning process following the regularly scheduled meeting. At this retreat the board will:

- Review the language of the statute authorizing the master plan.
- Review the main components of the 2004 Strategic Master Plan
- Hold a Vision, Mission, Values discussion.
- Hold a discussion about the 'key challenges' facing postsecondary education.
- Hear and discuss a presentation on proposed goals and organization of plan workgroups.
- Review a proposed future meeting plan to include public hearings on specific plan topics held throughout the state.
- Discuss communications challenges and opportunities relevant to the plan development.

The Returns on Education Investments

Draft Report from NORED for Washington Office of Financial Management

June 2006

Paul Sommers, Seattle University and William Chance, NORED

EXECUTIVE SUMMARY

Education produces both economic and social returns. Economic returns include higher earnings for workers who have attained higher levels of education. Workers with at least a year of college education earn about 10 percent more than high school graduates, and those with an associates degree earn about 25 percent more. A baccalaureate degree is associated with earnings 40-60 percent higher than a high school graduate. In addition, with more income and spending power, those workers with more education also provide governments with more tax revenues. Despite fears in the mid-1970s that colleges and universities were producing too many college graduates relative to projected employer demand, the labor market has handsomely rewarded graduating students with higher wages in the subsequent decades, resulting in a widening gap between average earnings of college graduates relative to high school graduates. In addition, two longitudinal studies of early childhood program participants from disadvantaged families also show an economic return on the order of 15 percent or higher once the participants entered the labor market.

Other studies document social returns to education. One study documents an externality effect. For every 1 percent increase in the percentage of college graduates in an urban labor market, high school dropouts' wages go up by 1.9 percent, high school graduates wages go up by 1.6 percent, and college graduates' wages go up by 0.4 percent. Higher education attainment is also associated with reductions in criminal activity. Society benefits through avoided incarceration costs as well as higher rates of labor force participation and earnings. One study found that each additional high school graduate would save society \$2100 in reduced public costs. These two studies are the definitive studies in the social impacts literature, with careful attention to difficult econometric issues. A variety of other social impacts have been found, based on simple correlations that do not take into account a variety of factors that could explain the results. These correlations with higher levels of education include positive health effects due to lower rates of smoking and obesity, more voting, more volunteer activity, more charitable giving, higher rates of blood donation, and more frequent use of seat belts. All of these social impacts are externalities in the sense that no one is paying the education sector to produce these outputs, and output is therefore likely to be too low. Also, since college graduates may move to another state after completing a degree, there is an argument that only the federal government is in a position to internalize all of these effects and come to a rational decision about the optimal level of investment in education. A state, knowing that some of its college students may leave after graduation, may tend to under-invest particularly at the baccalaureate and higher levels.

Most well managed education programs produce positive private and social returns in the long run. However, the state's financial situation forces prioritizing these investments. Considering a range of potential state investments, the highest returns may come from increasing the number of college graduates by preventing dropouts at all levels or increasing higher education participation rates, and from early childhood programs. Lower returns are likely from expansion of programs for various categories of adult learners due to higher opportunity costs. However, changing demographic patterns are increasing the importance of effective programs to enhance higher education participation from minority groups and immigrants lacking basic education.

Table of Contents

| | page |
|--|------|
| Forward..... | 1 |
| Introduction..... | 7 |
| The Statistical Record:..... | 8 |
| More Education = Higher Lifetime Earnings | 8 |
| Economic returns | 10 |
| Early childhood programs..... | 10 |
| Completing High School and Going on to College | 12 |
| Vocational and Workforce Training | 16 |
| Externalities | 17 |
| Social Impacts..... | 18 |
| Investment Options | 21 |
| Large Rate of Return Options | 22 |
| Medium Rate of Return Options..... | 25 |
| Low Rate of Return Options | 27 |
| Summary and Conclusions..... | 29 |
| Bibliography..... | 31 |

PREFACE

When one considers the economic and social benefits of education, one immediately encounters a number of associations between observed phenomena. The association between education attainment and average personal income is a good example: average personal income clearly corresponds with education attainment, an association so close it influences public policy in a variety of ways. And there are many other associations, some of which are represented on this abbreviated list.

- Estimated lifetime earnings for people with some college total \$1.5 million; for associate degree holders the estimate is \$1.6 million; for Bachelor's degree holders the figure is \$2.1 million; for people with master's degrees it is \$2.5 million; and for people with doctoral degrees the total is \$3.4 million. For people with less than a high school diploma the figure is \$1 million, and for high school graduates the estimate is \$1.2 million (Census)
- Median income for people who did not graduate from high school is \$13,660; for high school graduates it is \$21,948; for people with some college, it is \$27,381; for associate degree holders it is \$30,753; for people with bachelor's degrees it is \$40,287; for those with master's degrees it is \$50,021; and for those with doctoral degrees it is \$64,372. (Census, BLS)
- Unemployment rates vary by ethnicity, but in each ethnic group, they correspond with education attainment. For example, when blacks attain at least a bachelor's degree, their unemployment rate drops by half (College Board).
- Nationally, tax payments also align closely with education attainment: Total estimated taxes for people with bachelor's degrees equal 24% of median earnings; for high school graduates the figure is 21.7%. In all cases the percentage applies to progressively higher income rates. Stated differently, it takes 2.2 high school drop-outs to pay the equivalent in taxes of one bachelor's degree holder (College Board).
- While 24.4% of families living below the poverty level have less than a high school diploma, this is the case with 2.4% of those with a bachelor's degree or above. (Census, Current Population Reports).
- 73.8% of people with a bachelor's or higher degree had visited a dentist within the past year, compared with 38% of those with less than a high school degree. (NCHS).
- Although infant mortality rates are also associated with race and ethnicity, they decrease proportionately with education attainment for all reported racial and ethnic categories (NCHS).

- Two-thirds of those with a bachelor's degree or higher regularly wear seatbelts while driving, compared with 39% of those without a high school degree. The figure for high school graduates is 41%, and for those with some college it is 51%. (American Journal of Public Health)
- Of those women who were unmarried and had a child in the last year (1994), 45.6% had not finished high school, 30.3% had graduated from high school, 19% had some college, and 6.1% had a bachelor's degree or higher. (Census, Current Population Report).
- 25% of those with less than high school knew that it was the Supreme Court, rather than Congress or the President that determines if a law is unconstitutional; 78% of those with a bachelor's degree or more knew this (NCES)
- 73% of those with a bachelor's degree or above; 55% of those with some college; and 36% of those with a high school diploma knew what the first ten amendments to the U.S. Constitution are called, compared with 7% of those who had dropped out of high school (NCES).
- 52% of those with a bachelor's or above; 44% of those with some college; 33% of high school graduates; and 19% of those without a high school diploma performed an ongoing community service during the year (NCES)
- 91% of those with a bachelor's or above; 80% of those with some college; 68% of high school graduates; and 51% of those without a high school diploma voted in a recent national or state election. (NCES)
- 67.2% of those with a bachelor's or above; 56.9% of those with some college; 40.4% of high school graduates; and 29.9% of those without a high school diploma report they do volunteer work, with the amount of hours volunteered each week rising progressively with attainment level. (Independent Sector Survey)
- According to national figures, "one-tenth of one percent of people with a bachelor's degree were incarcerated in 1997, while 19 times as many high school dropouts were incarcerated, and 12 times as many people with only a high school diploma were imprisoned" (College Board)
- 71% of male offenders and 83% of female offenders in the Washington prison system score at less than the 9th grade level on basic skills tests. 50% of offenders were unemployed prior to incarceration.
- 87.1% of the adults in Washington have a high school diploma, compared with 32% of the Washington State prison inmates (U.S. Department of Justice).
- As of October 31, 2005, 18% of Washington's offender population had a verified high school diploma.
- According to DSHS, 85.5% of Temporary Assistance for Needy Family recipients have 12 or fewer years of education (Public Assistance Data Analysis files).

These bullets speak for themselves, and the list could continue. But by themselves they hint at but do not offer much direction for policy makers facing decisions about investments of public funds. As noted, average personal income levels correspond with education attainment levels: less than high school, high school diploma, some college, and bachelor's degree or higher (the most popular Census classifications) in every state, including Washington. Causality is implied: increased education attainment corresponds with increases in average income, *ergo*, increased income was *caused* by increased education. Perhaps it was; the association is clear, and a causal relationship in this case may be easier to assume than, say, in the case of the observation that incarceration rates correspond with education attainment (a much smaller percentage of people incarcerated in Washington prisons are high school graduates -- c. 32% -- than is the case with the adult population -- c. 87%). They do, but the possibility of intervening variables in the second case is likely to be much greater than in the first.

Even in the case of education attainment and income, however, the references are to averages: certainly some baccalaureate holders in Washington are earning less than the average, especially during the early years following graduation, and among many who are working in socially crucial fields, and some are earning more. But whether or not, such qualifications do not simplify the quest for answers to questions about the most effective forms of public investment, e.g., if Washington were to invest more money in programs to increase high school graduation rates, would it lead to reduced incarceration rates, reduced prison costs, reduced poverty rates, and to savings that would be greater than the increased costs associated with improving the graduation rate? Or would such an investment have any effect in terms of reducing incarceration or other indicative rates at all?

Answers to such questions compel rigorous cost-benefit analysis, and there have been some of those, many of which are reviewed in this paper. These are helpful, although some readers may be troubled by the remaining need for an inductive leap from a study's finding to an investment decision. The most methodical study imaginable may reduce the breadth of the leap, but it is not likely to eliminate it. Moreover, there seems to be an inverse relationship between meticulous attention to detail and the magnitude of the conclusion in such studies. Logically and ironically, it would seem the more detailed and painstaking the investigation, the less will be its policy efficacy, or, to paraphrase Aristotle, the more one knows, the less one knows. All of this is to say that one pays a rising price for nearness to certitude.

This is not new. In his seminal book, *Investments in Learning*, Howard Bowen offered this comment about the research on higher education outcomes:

“Available studies on outcomes tend to be fragmentary, of uneven quality, and difficult to interpret. There are six principal kinds of studies: (1) investigations of changes in the achievements, personalities, attitudes, and behavior of students during their college years; (2) surveys of the views of students and alumni about their college experiences; (3) censuses, public opinion polls, and other explorations of attitudes, economic status, and behavior of adult respondents; (4) multiple regression studies for particular populations incorporating many

variables and designed to sort out the separate impact of education on income, career choice, health, voting behavior, religion, and so on; (5) case histories of individuals; and (6) critical and analytical studies without empirical data.”¹

In their Foreword to the 1997 Edition of Bowen’s *Investment in Learning*, McPherson and Schapiro also write of data limitations. “It is true now, as it was when this volume [Bowen’s book] was written [in the mid-1970s], that social scientists’ ability to measure the effects of college is limited and imprecise. Howard Bowen wrote with great sensitivity to the limits on this knowledge, but he resisted the temptation to let the imperfections of available evidence drive him into silence.”

Bowen consults all types of relevant studies in some manner or another in his study. Most, in his view, however, suffer from defects (which he describes in some detail) and most are usually out of date. Quoting Bowen, “Admittedly it would be good to have complete and reliable quantitative data as a basis for decision making in all fields of human endeavor. Unfortunately, the world is not so constituted, nor is it likely to be. Meanwhile, decisions must be reached and accountability must be achieved on the basis of such evidence as can be mustered using reasonable judgment.”²

Bowen went on to note, “Usually, studies in this area compare the monetary earnings of college educated people with those of other persons. Frequently the results are expressed as rates of return in the form of incremental lifetime earnings resulting from investments in higher education.”³ He observed that such studies focus on results and usually do not delve into the nature of causal connections. He also attempted to go further than income studies by exploring linkages between education and economic activity, but his success in this respect was comparatively speculative and modest.

In a more recent book, Robert Putnam [*Bowling Alone*] is less interested in the personal and social results and benefits, the outcomes, of higher education, *per se*, than he is in social change in America. He encounters the same sorts of problems with the data as Bowen: “. . . [L]ike researchers on global warming, we must make do with the imperfect evidence that we can find, not merely lament its deficiencies. Exhaustive descriptions of social networks in America – even at a single point in time – do not exist.”⁴

In both cases the presumed benefits of education assume both societal and economic forms. Bowen includes “Disposition toward law observance” among the citizenship qualities on his list of higher education benefits. He also considers health amelioration among the effects he attributes to higher education. In this case, “Understanding of the basic principles for cultivating physical and mental health,” and “Knowledge of how and when to use the professional health care system” are the qualities listed.

Similarly, “Progress in human quality, freedom, justice, security, order, religion, health, and so on” exemplifies one of the features of advancement of social welfare for Bowen.

¹ Bowen, *op. cit.*, p. 27.

² Bowen, *op. cit.*, p. ix.

³ Bowen, *op. cit.*, p. 158.

⁴ Putnam, *op. cit.*, p. 23.

He asserts that "Education exerts a positive influence on health. The causal connections are not wholly understood. Education may affect the use of health services, and it may be conducive toward a way of life favorable to good health. Whatever the cause, educated people are, on the average, healthier than other people, and a connection appears to run from education to health."⁵

Bowen finds a positive correlation between education and the use of health services ("Educated people visit physicians and dentists more often than others") and, although the evidence is more limited, it does suggest that education is related to ways of life that are believed to be healthful. But for Bowen, "the acid test" of the relationship is actual health as measured by disability and mortality. He cites the findings of a 1975 study by V.R. Fuchs as follows:

"One of the most striking findings of recent research on the socioeconomic determinants of health in the United States is the strong positive correlation between health and length of schooling. This result holds for several types of health indexes, ranging from mortality rates to self-evaluation of health status, *and for comparisons of individuals or populations, such as cities or states*. It also holds after allowing for the effects of such other variables as income, intelligence, and parents' schooling."⁶ [Emphasis added]

Whether good health is a social/economic or individual benefit may be a matter of perspective. It probably is both. For his part, Putnam maintains that social connectedness, engagement, is the crucial link with health, but he also notes that education is an important predictor of civic engagement. He cites a 1999 Harvard School of Public Health Study that used data from nearly 170,000 people in all fifty states that found that people who lack health insurance, who are overweight, smoke, have a low income, *or lack a college education* are of greater risk for illness than more socio-economically advantaged people.⁷ His list exemplifies the nagging presence of other factors in these relationships, but college education's presence should not be understated.

Crime rates also may provide clues. State-by-state crime rates may be reflections of the public's disposition toward law observance, but these probably have a more delicate connection to education than the public health numbers. Bowen argues that the relationship is clouded by the difficulty of separating education from other potential influences. He notes that crime is less prevalent among college students than other youths, but causal inferences are hard to draw. Obviously, white collar crime might run the other way and correlate positively with education.

Incarceration rates may be another indicator, since prison populations contain disproportionately few residents who have completed high school or college. But, again,

⁵ Bowen, *op. cit.*, p. 210.

⁶ Bowen, *op. cit.*, p. 214. The emphasis is added. Bowen's reference to this study is incomplete or inaccurate ("1975, pp. 46-47"). His only endnote reference to Fuchs is to a 1974 study, "Who Shall Live?" (New York, Basic Books, 1974).

⁷ Putnam, *op. cit.*, pp. 327-28. Putnam cites Ichiro Kawachi, Bruce P. Kennedy, and Roberta Glass, "Social Capital and Self-Rated Health: A Contextual Analysis," *American Journal of Public Health* 89 (1999): 1187-1193.

the interplay is cloudy. Bowen speculates that to the extent that education produces jobs, it may inhibit the type of violent criminal activity that “flourishes in conditions of economic desperation.”⁸

Putnam also sees a relationship between education and law observance, although education may not be the strong predictor that it was for civic participation. He argues that the states with good social capital have proportionately fewer murders (“This inverse relationship is astonishingly strong – as close to perfect as one might find between two social phenomena.”) In his view, states rich in social capital tend to be wealthier, better educated, less urban, and more egalitarian in their distribution of income. Social capital in Putnam’s view is a more powerful predictor than a state’s education level in explaining variances in the number of murders per capita, although, of course, education is an important aspect of social capital.⁹

Abriane Williams and Watson Swail present the following quote from Bowen as they close out the executive summary of their report, *Is More Better*.¹⁰ It is worth citing again here:

"All things considered, perhaps we should find guidance in Howard Bowen's conclusion that the monetary returns from higher education are sufficient to offset all of the costs, and that the non-monetary returns, measured in social stability and efforts toward equality, are much greater in value: 'In short, the cumulative evidence leaves no doubt that American higher education is well worth what it costs.'"

And so it goes. Bowen, Putnam, and other studies are visited and revisited in the paragraphs that follow.

William Chance

⁸ Bowen, *op. cit.*, p. 157.

⁹ Putnam, *op. cit.*, pp. 307-308.

¹⁰ The Impact of Postsecondary Education on the Economic and Social Well-Being of American Society, May 2005, p. viii.

Introduction

This paper reviews the literature on the returns to education at all levels from pre-school through advanced university programs. The review presents the best evidence on these topics found through a survey of the academic literature as well as more applied work prepared by state agencies and various other organizations. Both economic and social returns of investments on education are considered. Private returns include the higher wages individuals earn after completing their education. Where possible, the net return is reported, taking into account investments students or their families have made to finance the students' educations.

The phrase "social return" is used in two senses in this literature. In some studies social returns refers simply to public subsidies that augment the tuition and other costs that students or their families pay. For K-12 programs offered by public schools, this public subsidy constitutes essentially all of the cost considered in the literature. For post-secondary education programs at public institutions, tuition typically covers only a portion of the costs of instruction, and the public subsidy appropriated to colleges can be compared to the increase in earnings of the graduates to estimate a social rate of return in this first and narrowest sense of the phrase. In addition, a wider concept of social return has been estimated which we call "social impact" in this paper to distinguish it from the narrower concept of social return. Social impacts include reductions in crime, lower utilization of safety net programs, improved citizenship, and a variety of other impacts attributed to higher education. In addition, an important category of social impact is an economic externality impact in the form of higher earnings of non-degreed workers who may benefit from productivity advances found in areas with a high proportion of degreed individuals in the workforce.

This paper focuses on the returns resulting from the behavior of former students as they leave schools, colleges and universities and embark on their adult lives. However, the paper does not consider the multiplier impacts of the presence of educational institutions in a city or state. There are many examples of such studies at the 2- and 4- year level. Such studies focus on the immediate impacts of the payroll of the faculty and staff, as well as the purchases these institutions make from vendors in the same area. A few of them are included in the bibliography for interested readers (see for example, Carroll and Smith, 2006; Clark, 1998; Lynch, 2004, or O'Hare, 2002). A review of this literature is provided by Goldstein and Drucker (2006) who suggest that the typical impacts study misses important externality effects on regional development, particularly in mid-sized metropolitan areas with research universities. This externality impact is discussed in the Externalities section below. The college and university impact studies do not typically consider the impacts reviewed in this paper - the long term economic and social impacts stemming from future activities of students in the workplace and society.

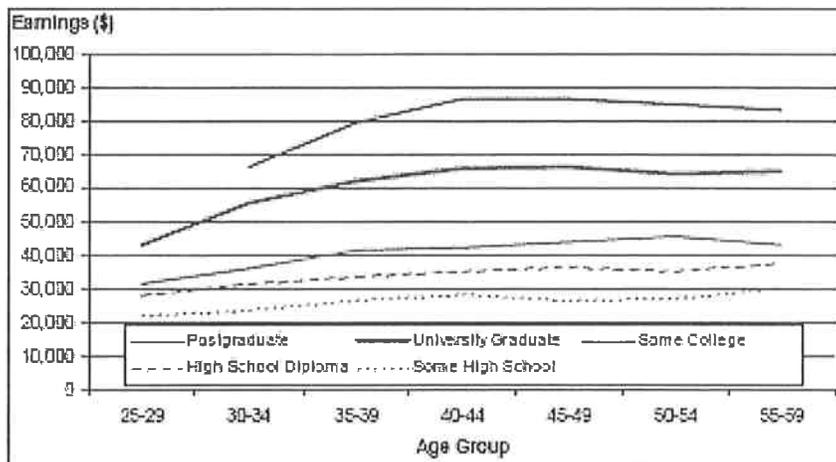
The paper covers the private and social rate of return literature first, moving from pre-school programs up through high school, community college, and university programs. The literature on broader social impacts is then considered. An extensive bibliography is

offered at the end of the paper, including internet addresses for many items which can be readily retrieved by interested readers.

The Statistical Record: More Education = Higher Lifetime Earnings

Statistical evidence stemming from the Census Bureau's Current Population Survey provides a basic source of data used in many studies to show that on average, the more education an individual has attained, the higher his or her lifetime earnings are likely to be. Hill et al. (2003) at Arizona State have compiled these data and present them in a chart that makes the point very vividly. Compared to high school drop-outs, whose average earnings range from \$20,000 to \$30,000 per year, individuals who have gone on to graduate from high school or to post-secondary education tend to have much higher earnings. Furthermore, the further up the educational ladder one climbs, the greater is the earnings increase, as can be seen by examining the distance from the some high school to high school graduate line to the distance from the high school graduate to the college graduate or graduate degree holders. The wider spacing of the upper educational attainment lines indicates an increasing return to higher levels of education. Opportunity costs of obtaining a bachelors or higher level degree are not considered in this chart. Rolnick and Grunewald, two economists from the Federal Reserve Bank of Minneapolis, observe that the returns to higher education have grown over time. The difference between the wages of college and high school graduates was on the order of 40 percent prior to 1983. More recent estimates peg this differential at 60 percent. Prior to 1985, the earnings of a person with a graduate degree exceeded those of a high school graduate by 60 percent. Since then this differential has grown to 100 percent (Rolnick and Grunewald, 2003).

Mean Annual Earnings by Age and Educational Attainment in the United States (full-time, year-round workers, 2002-03)

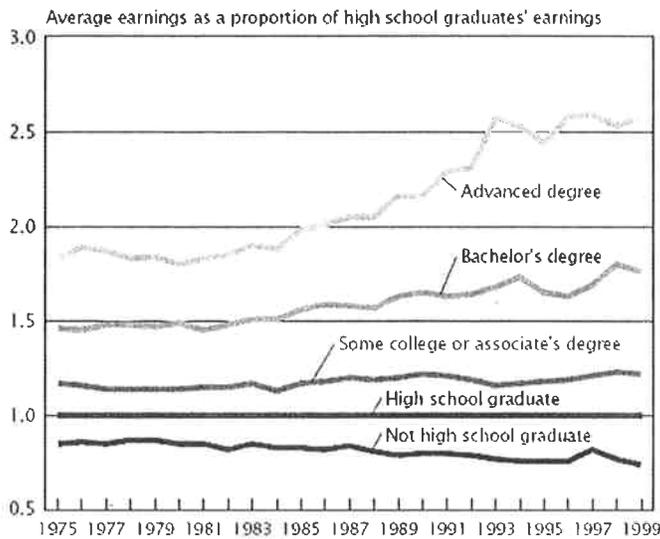


Source: U.S. Department of Commerce, Census Bureau, Current Population Survey.

From Hill et al. 2005, p. 14

A report by Census Bureau researchers Cheesman Day and Newburger (2002) shows that the earnings of bachelor's and graduate degree holders have been growing relative to a high school diploma since the mid-1980s. As of the year 2000, a bachelor's degree holder could expect to earn 1.7 times what a high school graduate would earn, and advanced degree holders were earning 2.5 times what a high school graduate could expect. While minority group members earn less than white non-Hispanic at all education levels, the returns to higher education levels are quite significant for all racial/ethnic groups.

Average Earnings of Full-Time, Year-Round Workers as a Proportion of the Average Earnings of High School Graduates by Educational Attainment: 1975 to 1999



Source: U.S. Census Bureau, Current Population Surveys, March 1976-2000.

Source: Cheesman Day and Newburger, 2002, p. 3

Pittenger (1999) makes many of the same points for Washington residents using data from the state population survey. Low incomes are associated with low levels of education attainment, and conversely, high income households tend to have highly educated members. Pittenger suggests that a bachelor's degree is the tipping point for entry into higher income categories since individuals with "some college" are not much higher than incomes of high school graduates. Persons with bachelor's and advanced degrees make up 75 percent of the population with incomes over \$75,000.

These national and state data establish the basic case for a substantial return to investment in higher education that increases an individual's human capital, capital that earns a return after the individual enters the workforce. However, these broad statistics do not consider the costs associated with obtaining a level of education, nor the impacts of particular public investments such as pre-school programs or access to a nearby community college to start post-secondary education. Nor do these broad statistics show

the role that public programs may have played in helping displaced adult workers re-enter the workforce.

To understand the impacts of public investments, the statistics must be unraveled and associated with the investments made in educating or training various groups of people. Beginning with Gary Becker, a long line of economists and policy analysts have framed the issue as a set of public and private investments in human capital that earn a return in the labor market as the educated individual enters the workforce. Viewed as a set of capital investments, one can begin to unravel the statistics, and estimate the return on particular investments such as a pre-school program, a displaced worker program, or public appropriations to public higher education. Becker notes that the research literature shows substantial returns to investment in education, even after netting out schooling costs, and adjusting for “IQ” or other measures of the intelligence and prior preparation of entering college students, and the wealth and education level of their parents. In addition, one can readily interpret falling rates of enrollment in higher education when college education rises rapidly or when labor markets tighten, forcing employers to hire less qualified workers (Becker, 2002).¹¹

Becker’s concept of human capital investments includes investments in health and the efforts of parents, religious and community organizations to instill good values in youth. However, his primary emphasis is on investments in education and training. What does the literature say about the impacts of education and training investments? We attack this question beginning with literature on pre-school investments. The literature discussed below reflects our sense of the highest quality material on a vast subject. “High quality” means that the literature reviewed uses established and well regarded research methods to isolate extraneous factors, hold constant personal characteristics when establishing impacts on very diverse populations, and establishing causality in very complicated environments when statistical correlations may suggest impacts that could be due to unobserved or poorly modeled factors. The bibliography appended to the report contains many items not mentioned in the report. The literature is simply too vast to include every detail in the report; the bibliography provides a broader selection of the literature for readers who wish to pursue the subject further.

Economic returns

Early childhood programs

Estimating the human capital impacts of early childhood programs requires a long term research strategy since the impacts are not fully realized for decades. Two often-cited studies involved long-term follow-up of individuals who participated in a pre-school program to establish long term impacts, including earnings after these individuals entered the workforce two decades later.

¹¹ See Minnesota Higher Education Services Office (2000) for an example of a state agency translating these hypotheses about business cycle impacts on higher education enrollments into practical projection methodologies.

Rolnick and Grunewald (2003) summarize impacts found in a longitudinal study of students enrolled in a pre-school program offered at the Perry School in Ypsilanti, Michigan in the 1960s. Low income African-American children aged 3-4 enrolled in the 30-week program attended daily 2½ hour sessions and also received a mother/child home visit once a week. The program was taught by certified teachers paid a 10 percent premium on normal wages at this school, and the student/teacher ratio averaged 6. These students were compared to similar children up to the age of 27. The sample was small – 123 children in the “experimental” group, but at the end of the program 117 were contacted for the final stage of the evaluation, a remarkable participation record for a longitudinal study. A total of 65 percent of the Perry pre-school students graduated from high school, compared to 45 percent of the control group, and four times as many of the pre-school cohort were earning at least \$2,000 per month at age 27 compared to the control group. Rolnick and Grunewald report a private and public return of \$8 for every dollar invested in the Perry pre-school program.¹²

This is a very high cost-benefit ratio, but it should be noted that 24 years elapsed before this return was fully realized. If one invests \$1 in year 1, and then earns \$1 each year in years 20-27, corresponding to an individual who goes through school and perhaps some college and enters the workforce at age 20, then the net present value of the \$1 pre-school investment, ignoring all other educational investments, is \$5.84 assuming a 3 percent “inflation free” interest rate. Grunewald and Rolnick do not present any data on other educational investments society or the students’ parents made in these 117 individuals, but if the control group on average received the same K-12 and post-secondary investments as the pre-school students, then we can ignore these subsequent investments in estimating the rate of return on the pre-school program. A discounted return of nearly \$6 on every dollar invested is a substantial return, indicating that the Perry School did well by these students.

Another well-known longitudinal study of pre-school interventions was conducted by Reynolds et al. (2003) who examined data concerning over 1500 children in Chicago. Participants were followed for 18 years, up to the age of 21, and data are reported on the 85% of the original sample who were contacted at age 21. Of the 1500, 989 disadvantaged children participated in a pre-school program and 550 similar children did not, serving as a comparison group. Comparison of workforce outcomes for the pre-school participants and the comparison group suggest a cost benefit ratio of 7.14.

These are the two best known longitudinal studies of pre-school programs, and both studies demonstrate very substantial impacts for quite modest investments made at an early age to prepare children and their parents for the K-12 education experience. In both studies, a variety of social impacts are also documented including lower rates of criminal activity and lower rates of usage of welfare and other safety net programs.

Other studies have examined statewide impacts of universal voluntary pre-school programs that are available in several states. Gormley and Phillips (2005) examined

¹² Other research on the Perry pre-school program can be found at <http://www.highscope.org/NewsandInformation/PressReleases/PerryP-Age40.htm>

impacts of such a program Tulsa, OK, finding substantial impacts on cognitive development of minority children; however, these authors do not comment on costs or economic benefits of these impacts. Belfield (2005) extends the argument into the realm of economics, looking at long term fiscal consequences of universal pre-K programs in three states: Massachusetts, Wisconsin, and Ohio. He utilizes a model built on findings from the literature on social impacts to estimate the costs and benefits of universal pre-kindergarten programs in terms of reduced use of special education programs, reduced grade repetition, and a variety of other effects that raise the efficiency and reduce the costs of primary and secondary education. In addition he considers the increased ability of parents to enter the workforce because their children are enrolled in pre-K programs, higher earnings, improved health and lower incarceration rates of the pre-K students in adulthood. He finds a positive cost-benefit ratio in all three states with a more aggressive version of his impact model, but a very low ratio in one state and a negative ratio in another using a very conservative version of the impact model. And Bartik (2006) uses estimates of the impacts of the Chicago pre-school program (see Reynolds et al. above) to compare investments in pre-school programs to investments in a traditional recruitment-based economic development program. He concludes that these two alternative investments have returns of comparable magnitude, but notes that the return on pre-school investments are longer term and subject to spillover effects on other states due to population migration. Therefore, he suggests that the federal government should invest more heavily in pre-school programs since the spillover effect is largely internalized at the national level.

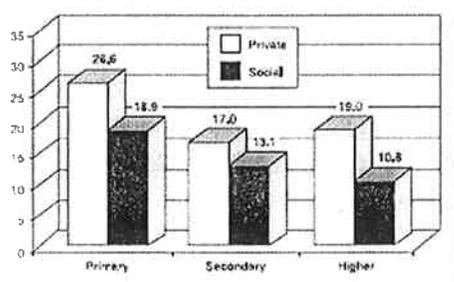
Lynch (2004) provides a summary of the leading studies of early childhood effects, and offers some projections on the costs and benefits of a national program to provide early childhood education to all 3- and 4-year who are living in poverty. The estimated budget costs to all levels of government would amount to about \$20 billion in the first year of full implementation and would decline thereafter since the program should result in growing savings over time in K-12 education, social assistance, and criminal justice spending. Eventually higher wages of those benefiting from early childhood education would provide additional tax revenues. Lynch concludes that savings and new tax revenues would offset costs after the 17th year of the proposed program, contributing a small surplus to the combined federal/state/local budgets thereafter. Note that Lynch is focusing narrowly on the returns to government itself in the form of reduced social program costs or increased tax revenues. He does not include the broad economic impact of the higher wages of workers who participated in pre-school programs in their childhood, suggesting that in a broad benefit-cost analysis a positive net impact point would be reached much earlier than the 17th year.

Completing High School and Going on to College

The statistical evidence provided in the introduction is strongly suggestive of a substantial rate of return to education, but it does not take into account the cost of providing that education. Education can be thought of as an investment similar to investing in physical capital or in stocks and bonds. Society as well as parents make these investments, expecting an economic return in the form of higher wages as well as social benefits from the graduates. The higher wages in turn generate higher tax

payments to government, providing a financial return that may offset or even exceed government costs of providing education. Many studies have been conducted, not just in this country but throughout the world, showing that once public and private costs are properly taken into account, there is a positive and quite substantial rate of return on educational investments. Psacharopoulos and Patrinos (2004) review a large number of studies from 73 countries. The figure on the next page summarizes their results by level of education. Given the international scope of their study, they divided their results into three levels of education: primary, secondary, and higher. These terms correspond to approximately 8th grade, high school, and baccalaureate and beyond in U.S. terms. They find private returns, essentially workforce earnings to the workers themselves, of 29 percent for primary school completers, 17 percent for secondary school completers, and 19 percent for college completers. Social returns, that is, the earnings of graduates compared to public investments in education, ranged from 19 percent at the primary level to 13 percent at the secondary level, and 11 percent for higher education.

Returns to Investment in Education in 73 Countries



Source: Psacharopoulos and Patrinos, 2004, p. 112

Hill et al. consider just the returns to earning a bachelor's degree in the United States. Their results, shown in the table below, net out the costs from the benefits, and use a discount rate calculation to account for the fact that benefits occur over the course of a career following exit from the educational system. Net discounted benefits of a bachelor's degree for men are \$338,465 greater than exiting the educational system with just a high school diploma, and are \$250,380 greater for women, in the United States. These benefits correspond to a combined public and private rate of return on investment of 11.7 percent for men and 11.6 percent for women.

Value of a Bachelor's Degree

| | Men | Women |
|---|-----------|-----------|
| Costs (Ages 18 to 21) | | |
| Tuition, fees, government appropriations | \$60,000 | \$60,000 |
| Foregone earnings | 70,592 | 57,292 |
| Total costs | 130,592 | 117,292 |
| Total costs, discounted at 4 percent real interest rate | 123,250 | 110,696 |
| Benefits | | |
| Earnings with a high school diploma | 1,734,824 | 1,243,838 |
| Earnings with a four-year degree | 3,012,522 | 2,202,327 |

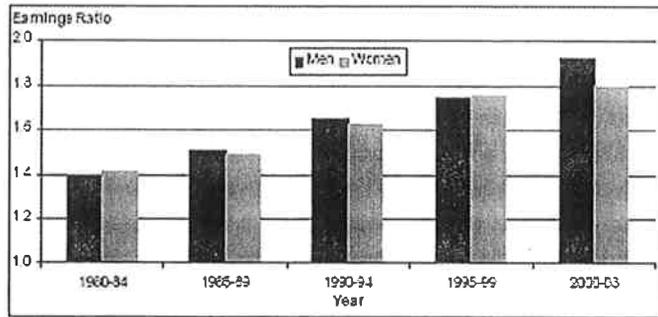
| | | |
|---|-----------|---------|
| Differential in earnings | 1,268,698 | 958,489 |
| Earnings differential discounted at 4 percent | 461,715 | 361,075 |
| Net present value of a bachelor's degree | 338,465 | 250,380 |
| Internal rate of return | 11.7% | 11.6% |

Source: Hill et. al. 2005, p. 17

Other significant studies elaborate or refine these results to look at impacts on different levels of education or various sub-groups within the population. Monk and Turner (1994) estimated the return to 27 year old individuals for investing in a 2-year community college degree and for investing in a 4-year degree, both relative to just completing a high school diploma. The rate of return on the associate degree investment was estimated at 5.4 percent and the bachelor's degree at 7.9 percent. Other studies suggest an increase in the rate of return over time, and these estimates are probably low for current students. Kane and Rause (1995), using data from the early and late 1970s versions of the National Longitudinal Study of Youth, found that students who earned a baccalaureate degree earned 10-20 percent more than holders of associate degrees, and that associate degree holders earned 15-25 percent more than high school graduates.

However, no other articles explicitly compare returns to 2- and 4-year degrees. For example, Marcotte et al. (2005) estimate that a year of community college education raises earnings by 5-10 percent, using data from the National Education Longitudinal Survey of students who were in 8th grade in 1988. Earlier work by Grubb (1993, 2002) found similar, but slightly smaller impacts with data from the National Longitudinal Study of Youth from earlier years. Bryant (2001) estimates that earning at least 30 credits at a community college is associated with a 15 percent long term earnings increase compared to high school graduates, but does not consider what the earnings increase is for bachelors degree holders. Carnevale (2000) observes that average earnings by level of educational attainment can be very misleading because there is a considerable area of overlap between the earnings of associate degree holders and bachelors degree holders. Hill et al. (2003, p. 15) portray increases in the earnings differential between 35-44 year old bachelor's degree holders and high school graduates over time, but do not consider the differential associated with an associates degree. Watts notes that the higher incomes earned by Kentucky's 4-year college graduates over the course of their careers translate into higher tax revenues for the state and the federal government -- an estimated \$23,000 more in state income tax revenues and about three times that amount for the federal government (Watts, 2001, p.xiv).

Earnings Differentials of Individuals Aged 35-44 over Time Bachelor's Degree Holders Compared to High School Graduates



Source: U.S. Department of Commerce, Census Bureau, Current Population Survey

From Hill et al. (2003), p. 15

The increasing return to higher education investments was not anticipated by labor economists who started studying these issues in the 1960s and 1970s. An interesting collection of essays was published in 1974 by the Carnegie Foundation. Summarizing findings of several contributors in an introductory essay, editor Margaret Gordon expresses considerable concern about “credentialism,” the practice of employers hiring college graduates for jobs that may not require that level of education. Early writings by MIT economist Lester Thurow raising the issue of credentialism are among those Gordon cites. Employers who hire college graduates for jobs someone with less education could perform adequately, she says, are hoping that the technical competence required for the job will be accompanied by a critical thinking capacity acquired in completing a college degree, a capacity that may be valuable to the employer. However, over-supply of college graduates in the 1970s was expected to reduce the earnings differential between college and high school graduates (Gordon, 1974, p. 19). Richard Freeman raised this issue very prominently two years later with a book called “The Overeducated American” (Freeman, 1976).

Instead of the narrowed wage differential Gordon, Freeman, and others expected, the historical record portrayed by Hill et al. in the chart above shows a widening differential. Employers have shown a consistent preference for more highly educated workers over the last 40 years. This is an important finding since the basis for the credentialism argument lies in the same occupational forecasting system that exists, with modifications and improvements, at the present time. This forecasting system is projecting a balance between overall supply and demand for workers with baccalaureate degrees in the next decade.¹³ This current projection should be treated with considerable skepticism given the historical refutation of the credentialism hypothesis in recent history.

In summary, economic returns to education are substantial. Pre-school interventions can have substantial long run returns of \$7 or \$8 for every dollar invested as suggested by two long term longitudinal studies of individuals who were enrolled in pre-school

¹³ See Higher Education Coordinating Board, State and regional needs assessment report, Olympia, October 2005, pp 24-30.

programs. Primary, secondary, and higher education programs yield substantial rates of return in studies conducted in over 70 countries. In the U.S., recent studies show a steady increase in the rate of return since the 1960s, with recent estimates pegging the returns to a bachelor's degree at about 12 percent. One study from the mid-1990s demonstrated that a 2-year degree from a community college has a smaller impact than a 4-year degree, with the 2-year degree associated with earnings of about two-thirds of the amount associated with a 4-year degree.

Vocational and Workforce Training

Not everyone studying at a community college is pursuing a degree. Many colleges provide shorter term training for displaced workers. Two articles by Louis Jacobson and colleagues consider the rate of return on these programs using administrative data from 25 colleges in the State of Washington. They find that a year of additional college raises the future earnings of displaced workers by at least 7 percent, with a greater effect on women than on men (Jacobson et al. 2005). However, in a prior paper, these authors consider the opportunity costs of that year of training, on the assumption that many of these workers could have found a new job instead of going back to college. For workers aged 35 or higher, a year invested in college is associated with an 8 percent rate of return for men and 10 percent for women. When these student-workers' opportunity costs are taken into account, the rate of return drops to 2 percent for men and 4 percent for women (Jacobson et al. 2003).

A General Accounting Office report published in 2004 finds that definitive statements cannot be made about the impacts of workforce training programs funded by states through payroll taxes. 23 states offered such programs, with an aggregate budget of \$278 million, and 22 of these states conducted some sort of evaluation of the impacts of these programs. However, GAO concludes that "none have used sufficiently rigorous research designs to allow them to make conclusive statements about the impact of their programs, such as their effect on worker wages or company earnings." (General Accounting Office, 2004, executive summary)

Several studies have been done by Kevin Hollenbeck of the Upjohn Institute together with several colleagues, linking data on training program participants with workforce outcomes data from state labor agencies. Hollenbeck (2004), using administrative data from Washington State, finds 10 to 15 percent increases in employment for dislocated Washington workers who participated in federally funded job training programs, and 5-10 percent increases in earnings. These findings come from studies using a quasi-experimental design in which workforce outcomes of training program participants are compared to similar dislocated workers who did not participate in training programs. Hollenbeck et al. (2003) report preliminary findings from 6 states, including Washington, looking at earnings 4 quarters after exit from a federally funded training program. They find very small impacts on earnings in several of the states, and negative impacts in some of the states.

Finally, Hollenbeck and Huang (2003) examines workforce outcomes of a number of federally funded training programs in Washington State, using a quasi-experimental

design comparing program participants who exited training programs in 1997-98 to similar non-participants. Short and long term impacts are considered in a cost-benefit framework, with generally positive impacts for 7 of the 9 programs evaluated in the long term (two years after exit) but some negative impacts in the short term. Since new hires often are offered low starting wages and then are given raises if they perform well, the short term impacts should be discounted and more attention paid to the longer term impacts.

This limited review of literature on workforce training suggests small but generally positive impacts on dislocated workers who participate in training programs before re-entering the workforce. However, opportunity costs of training program participation reduce the net impact estimates substantially. Still, even the Jacobson studies show positive, if small, impacts when opportunity costs are taken into account.

Externalities

Externalities are the first type of social impact considered in this review. Externalities arise when economic impacts are not confined to producers and consumers of a product or service. In the case of higher education, utilization of skilled workers by employers leads to productivity increases that spread the benefits of higher education beyond the immediate workplace. Regional productivity impacts are found by Moretti (2004a and 2004b), and Gottlieb and Fogarty (2003). In each of these papers, difficult methodological issues are tackled in order to isolate the impacts of education expressed through some form of externality.

Moretti (2004a) uses both a longitudinal study of individuals as well as cross sectional data to establish that there are externalities associated with the presence of a well educated workforce in a city. The longitudinal sample of 6,791 individuals from 201 cities is derived from the National Longitudinal Study of Youth, a Bureau of Labor Statistics sample of youth who were surveyed annually from 1979 to 1996. By following these individuals over time, impacts of the average level of education in a particular city can be discerned while holding constant individual characteristics. However, this approach leaves open the possibility that unobserved characteristics of cities are attracting more talented individuals. In a separate section of the paper, Moretti uses a sophisticated econometric methodology to analyze cross-sectional data to control for these city effects. His overall conclusion is that a 1 percent increase in the percentage of college graduates in a city is associated with externality impacts on the wages of other city residents:

- 1.9 percent wage increase for high school dropouts,
- 1.6 percent wage increase for high school graduates,
- 0.4 percent increase in the wages of college graduates.

Moretti (2004b) shows that manufacturing plants located in cities with high levels of college graduates have greater productivity than plants located in cities with lower levels of educational attainment. He concludes that a 1 percent increase in a city's share of workers with a college degree is associated with a 0.5 to 0.7 percent increase in

productivity. These productivity differences are associated with higher wages in the cities with more college graduates.

Gottlieb and Fogarty (2003) use Census data from 1980 to identify the 10 metropolitan areas with the highest percentage of college graduates among the population over age 25, and the 10 with the lowest percentage of college graduates, from a sample of the 75 largest metropolitan areas in the country. In 1980, the 10 most educated areas had per capita incomes 12 percent above the national average, while the 10 least educated areas were 3 percent below the national average. Over the next 20 years, the gap between these two set of cities widened dramatically. In the 10 metropolitan areas with the highest percentage of college graduates, real per capita personal income grew 1.8 percent annually, while in the 10 with the lowest percentage of college graduates, per capita personal income grew by just 0.8 percent annually. Employment growth rates were similar, albeit a bit larger in the cities with more college graduates (2.7 percent annually) than in the cities with proportionally fewer college graduates (2.5 percent). Second, using a larger sample of 267 metro areas, a regression analysis demonstrates a strong association between education attainment and both real per capita personal income and employment growth, controlling for the effects of region, industry structure, and rate of labor force participation.

These three studies, all published in prestigious economics journals, demonstrate that regions with more college graduates as a percentage of the workforce have higher wages, higher productivity in manufacturing plants, and higher rates of income growth in recent decades. Furthermore, the wages of all workers are higher in the cities with a higher proportion of college graduates. None of these papers consider overall educational attainment levels, or specifically the impact of a higher percentages of workers with some college but less than a bachelor's degree.

A final paper by Goldstein and Drucker (2006) finds that research universities, especially those in medium sized metropolitan areas, have substantial externality impacts on their surrounding regions. Their findings are based on a regression analysis of data from 330 US metropolitan areas. Research, teaching, and technology development programs all have positive impacts on surrounding regions, contributing to stronger income growth, especially in small and medium sized metropolitan areas, those with less than 200,000 residents.

Social Impacts

A variety of social impacts have also been associated with higher education levels, including reduced crime rates, higher voting rates, more volunteerism, etc. The social impacts literature varies greatly in the sophistication of research methods employed and the confidence one can place in the results.

Coley and Barton (2006) review trends in incarceration in the United States, noting that the rate of incarceration has gone up from 313 per 100,000 residents in 1985 to 726 per 100,000 in 2004. States vary greatly in how much they spend on educating prisoners; New Jersey spends an average of \$6,500 per participant, while Wisconsin spends less

than \$500. Washington's spending level is not reported, a footnote says that states not included did not respond to the survey. Coley and Barton conclude that investments in education of prisoners may have a positive social return due to lower rates of re-incarceration, but do not offer any estimates of the size of these social impacts or the rate of return the public might realize by investing in education of prisoners.

Lochner and Moretti (2003) extend the argument for social impacts, arguing that more education is associated with lower rates of criminal activity once some difficult econometric issues are sorted out. In particular, previous studies found low correlations between education levels and criminal activity, but did not take into account unobservable characteristics of individuals that may be correlated with also unobservable characteristics that pre-dispose individuals to criminal activity. Some states have increased the number of years of compulsory schooling, thereby providing natural experiments that are useful in dis-entangling personal characteristics from the effects of schooling. Data from the National Longitudinal Survey of Youth allow the authors to hold constant personal characteristics. Regression analysis of NLSY data, including individuals from states where education requirements have gone up and individuals where there has been no change in compulsory schooling suggests that one additional year of schooling (pre-college) is associated with a 0.1 percent decrease in the probability of incarceration for whites and 0.37 percent for African-Americans. A separate data set with information on arrests confirms the general magnitude of these effects. Given the costs associated with incarceration, Lochner and Moretti suggest that a 1 percent increase in male high school graduation rates nationwide would result in public sector savings of \$1.4 billion, or \$2,100 per high school graduate. These authors do not present any data on the potential costs of achieving a 1 percent increase in graduation rates.

Steurer et al. (2001) extend this argument to education of prisoners, using data from prisoners incarcerated in Maryland, Minnesota, and Ohio in 1997 whose status was determined in 1998 after release from prison. Data on inmate characteristics including participation in prison education programs was collected from approximately 1,000 inmates about to be released in each of the three states; data were assembled on a total of 3,170 individuals from the three states. The entire release cohort was studied, a quasi-experimental design taking advantage of differences in participation in prison education programs in each of the three state cohorts. Parole officers were surveyed to determine the status of these individuals after release. Recidivism rates were determined using federal data on arrests and convictions for a three year period after release. Employment data was obtained from state employment offices for the same post-release period in Maryland and Minnesota; comparable data from Ohio could not be utilized due to an unexplained incompatibility in data formats. Education participation while in prison was measured by a simple dichotomous participation or non-participation variable since no data were available on the extent of participation. No information is available on the nature of the education programs offered to these individuals, making it likely that the "treatment" received by those rated as participating in prison education programs was highly variable. In Maryland, 31 percent of the cohort participated in education programs; in Minnesota, 55 percent participated; in Ohio, 43 percent participated,

resulting in 1373 education program participants in the pooled sample and 1797 non-participants. Major results of the study include:

- 29 percent lower re-incarceration rate for participants in education programs.
- Little difference on the rate of employment – 77 percent for participants and 81 percent for non-participants.
- Substantial wage differences as shown in the table below.

Wage Outcomes for Ex- Prisoners

| Years after release | Participants | Non-participants |
|---------------------|--------------|------------------|
| Year 1 | \$7,775 | \$5,981 |
| Year 2 | 9,353 | \$8,492 |
| Year 2 | 10,629 | \$9,558 |

Source: Steurer et al. 2001, p. 43

The reported wage effects in this study are quite striking, but the study's weakness's are also apparent in that the "treatment" effect is not described in any detail. Also there is no assessment of the strength of labor markets into which prisoners were release and it is possible that there was some systematic difference in the opportunities faced by participating and non-participating prisoners. The intriguing but somewhat unsatisfactory nature of this study serves as a spur to further research. If there is a general correlation between more education and less crime, as Lochner and Moretti show, and if the provision of education to prisoners could help to prevent future criminal activity after release from prison, there would be a strong argument for expanding prison education programs. However, a stronger case needs to be built for the efficacy of in-prison education.

Other work on the relationship between education and subsequent criminal activity is even less convincing, but nevertheless intriguing. A just released National Bureau of Economic Research working paper helps to make that case. Tyler and Kling (2006) compared Florida inmates who earned a GED in prison to similar prisoners who did not earn a GED in prison. Some of the individuals in the comparison group did earn GEDs outside of prison. However a comparison of their earnings after release showed a 15 percent advantage to those who earned GEDs in prison. These effects of the in-prison GED program were found only for minority group members, and the effects disappeared after three years in the labor market outside prison. This transitory effect, linked with population characteristics, suggest some causal mechanism other than simply educational attainment is at work. Fine et al. (2001) compared 274 women who attended college while in prison to 2,031 women who did not attend college while in prison; the in-prison college attendees were significantly less likely to be re-incarcerated (7.7%) than those who did not attend college while in prison (29.9%). With no controls for inmate characteristics, this study cannot be regarded as definitive, but like the other works on prisoners and education, the results are intriguing and suggest issues for further research with improved research design.

A variety of other social impacts have been attributed to education, but often on the basis of simple correlations and without controls for unobserved characteristics of populations or places that might be the true causal factors. While these impacts may be truly due to

education, more sophisticated research is needed to confirm impacts. Among the suggested impacts are:

- Lower unemployment
- Poverty reduction
- Improved health, to some degree based on lower rates of smoking among more highly educated adults
- More volunteerism
- Higher voting rate, and
- Greater frequency of blood donations.

All of these factors are featured in a College Board report that shows correlations to these and many additional variables; however, the College Board study does not go beyond correlation to test causation (Baum and Payea, 2004).

Watts (2001) uses regression models to show relationships between education and positive social outcomes, based on data from Kentucky. Watts also estimates financial returns to the state based on budget data. Among the findings are:

- Estimated savings on state assistance and food stamp programs of \$1,736 for a woman and \$1,586 for a man if education attainment increases from high school diploma to bachelor's degree;
- Lower incarceration rates resulting in savings of \$8300 per year comparing a college graduate to a high school drop-out;
- A 14% lower probability of smoking in the last 30 days comparing a college graduate to a high school drop-out; and
- A 10% increase in charitable giving comparing college graduates to high school graduates.

Kenkel et al. (2004) examine the smoking issue in some depth using data from the National Longitudinal Study of Youth. With this rich data set they can control for many individual characteristics that may be associated with smoking while examining the impact of education in regression models. They find that males who graduate from high school are less likely to be lifetime smokers. Weaker relationships are found for men who earn a GED and for women generally.

Investment Options

A wide range of investment options are conceivable for a state that wants to do a better job of educating its citizens, starting with pre-school programs, but also including improvements in the K-12 system, strengthening academic transfer and workforce programs at the community colleges, providing more capacity at the university level, and adding more capacity in graduate programs. A reasonable argument can be made for a positive return to well designed investments in any of these areas.

This section considers some of the literature recommending various investments in other states and attempts to construct a rough rank ordering of potential investments by likely rate of return. Much of the literature reviewed in this paper is not designed to provide a simple rate of return estimate, and therefore the investment options considered below are

grouped in three likely rate of return categories: large return on investment, medium return on investment, and low return on investment. A rationale for assignment of each option to one of these rate of return groups is provided in the discussion below.

Large Rate of Return Options

Early Childhood Programs

Nobel laureate James Heckman (2006) makes the case for early childhood program investments targeted at disadvantaged children. He suggests that the economic returns in terms of later earnings will be in the neighborhood of 15 to 17 percent, and notes additional social impacts in terms of criminal justice and health impacts. Against the compelling evidence that Heckman and others have assembled on early childhood program impacts, the spillover of benefits to other states must be taken into account, reducing the state level return considerably. The spillovers imply that national investments would be most efficient; any individual state may tend to under-invest because many of the early childhood program participants may end up working in another state as adults. Of course, this spillover problem applies to any education investment, providing a strong rationale for a stronger federal role in funding education. This review has considered only the two seminal studies on long term impacts of early childhood programs. Other literature evaluating cognitive and other impacts of early childhood programs should be examined to determine specific investment options.

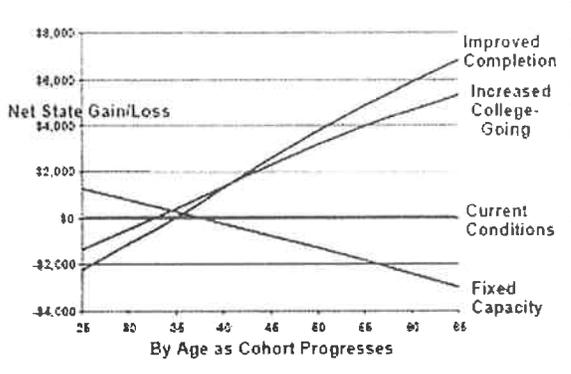
Investing in Higher Education

Brady et al. (2005) developed a simulation model to estimate impacts of investments in California's higher education system. They conclude the limiting capacity in the higher education system will have positive impacts on the state budget in the short run, but longer term impacts will be negative, costing the state two dollars in lower earnings and tax revenues as well as higher social program costs for every dollar saved in the short term. They argue for two investments that each have approximately a 3 to 1 positive impact:

- increased college going (higher participation rate), and
- improving completion rates.

Improved completion rates have somewhat higher returns than higher participation rates in the long term as seen in the following chart:

Net Gain or Loss to the State of California from Alternative Education Policies



Source: Brady et al. 2005, p. 114

Ewell et al. (n.d.) define an educational pipeline and estimate the “leakages” from the pipeline as students stop participating. The significant stages in the pipeline are:

- Graduation from high school
- Entry into postsecondary education
- Persistence in postsecondary education
- Completing postsecondary education
- Entering the workforce

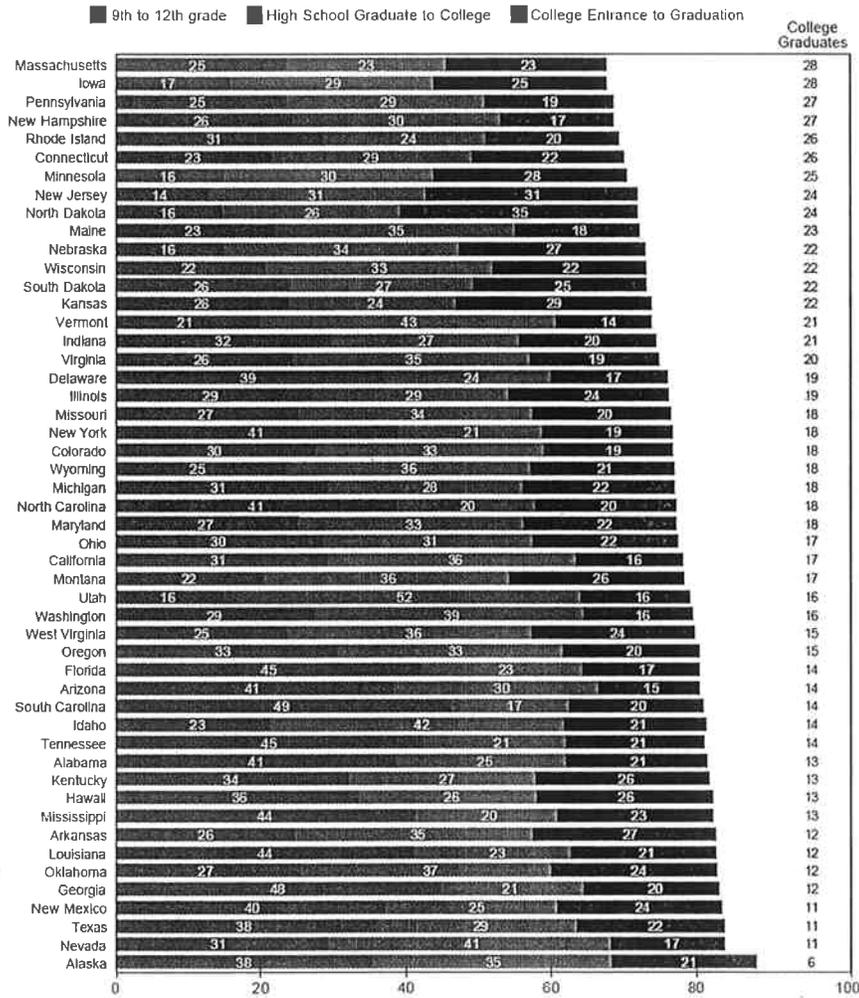
They show data on how many students drop out of the pipeline at each stage and discuss a range of policy options that could reduce the rate of non-participation at each critical stage. However, they do not offer any estimates of the costs or quantitative benefits of these options. The chart on the following page shows the data by state on pipeline “leaks;” the states are ordered in the table by the final contribution each state’s pipeline makes to the supply of college graduates. Washington falls 31st on the list, somewhat below the median.

Ewell et al. outline a number of potential investments that could reduce the tendency to drop out of education:

- Graduation from high school
 - Improve foundation skills through more rigorous courses in early grades, targeted at closing gaps between lower and higher socio-economic status children
 - Parental, employer, and community involvement
 - Financial equalization providing more resources to high dropout districts
- Entry into postsecondary education
 - Affordability strategies aimed at state’s poorest citizens
 - High capacity open entry 2-year college system coupled with ready geographic access to transfer institutions
 - Speed the transition from high school to college through dual enrollment or advanced placement
 - Alignment between high school graduation and college entrance requirements
- Persistence in, and completion of, postsecondary education
 - Learning communities and other academic support programs for freshmen
 - Intensive enrollment in foundation coursework in first year of college

- Schedule responsiveness to student needs
- Affordability policies
- Effective transfer arrangements

**NCHEMS Educational Pipeline
Of 100 9th Graders—Loss at Each Stage of Transition (2000)**



Source: Ewell et al., n.d., p. 6.

Taken together, Hill et al. and Ewell et al.’s research suggests that low cost programs to plug leaks in the higher education pipeline would be especially attractive investments to boost a state’s baccalaureate degree production. However, there is no track record in the published literature reporting on the efficacy of steps such as those Ewell et al. recommend. Hill et al. recommend two alternatives – increasing participation rates and improving completion rates – without specifying specific strategies to achieve either goal. If Washington State adopts policies to reduce pipeline leaks or increase participation, early efforts will have to be carefully monitored to assure cost effective results.

Medium Rate of Return Options

Tailored investments to increase science and engineering

The General Accountability Office (2005) reports that the percentage of all national college students going into science, engineering, and mathematics fields has increased from 21 percent in 1995-96 to 23 percent in 2003-04. The absolute number of graduates in the science, engineering, and mathematics fields actually went up by 8 percent, but the rate of increase was very rapid in non-technical fields of study. The report lists several factors influencing student decisions about whether to enter technical/scientific majors:

- Teacher quality in K-12 schools,
- Math and science course completion in high school, and
- Mentors, especially for women and minorities.

Barton (2002) finds that there is shortage of scientists and engineers in the US, driven by both expanding demand and declining degree production in these fields. After reviewing workforce trends data showing rapid growth of minority groups within the population, he concludes that the solution to shortages of scientists and engineers will require more entry into relevant college majors by minorities, and that in turn will require new efforts at all levels of education to increase the number of students mastering high school math and science so as to have the option of entering science and engineering majors in college. Hill et al. (2003) suggest that college graduates are very mobile and that a single state trying to increase the educational attainment of its population would have a very low rate of return if increasing in-state degree production was the only strategy. They also offer a very interesting list of states that are the largest net importers of college graduates, comparing state's rankings on degree production and population size. The states which appear to be the biggest importers of college graduates based on the difference in these two rankings are Alaska, California, Maryland, Hawaii, and Virginia. The states that are the largest net exporters of college graduates are Iowa, Missouri, North Dakota, South Dakota, Alabama, and West Virginia. Note that three of the large net importers are peer "Global Challenge" states, and none of the net exporters are peer states.

The Technology Alliance has argued that there is insufficient degree production in science, mathematics, and engineering programs in Washington universities based on rankings of states' degree production per 1000 student age residents in each state. They also suggest that the lack of capacity in such programs is denying current residents of the state access to high wage jobs, and that local firms, especially startups, would benefit from access to skilled workers graduating from these programs. However, the Technology Alliance has not offered any quantitative benefit estimates (Sommers and Hitachi Consulting, 2004).

These three studies suggest several policy options for increasing bachelor's level degree production in science and engineering fields:

- Improvements in K-12 science and mathematics teacher quality and quantity through focused programs in schools of education;
- Development of a mentoring system for K-12 students in partnership with workers presently employed in these fields; and

- Increased capacity at the university level in selected science and engineering fields matched to expanding industry sectors.

The literature on this topic does not provide any rate of return estimates. However, several facts suggest that returns could range from moderate to large. First, the industries that employ science and engineering graduates are high wage industries with substantial and above average economic impacts. Second, the required academic programs are relatively expensive, requiring faculty with relatively high salaries, plus laboratory space and equipment, and computers, all of which must reflect the rapidly changing technology in use in industry to be effective as teaching tools. Third, students who graduate from science and engineering programs are in great demand in many states since this is a national problem, and a substantial fraction of Washington's graduates may be lured out of state by higher wage offers of companies located elsewhere. And fourth, well established companies have the ability to recruit graduates from other states, in effect limiting the externality impacts of increased degree production in this state. Higher capacity at Washington universities would provide opportunities to the state's students but would not necessarily cause greater impact from growth of established firms. For these reasons, this investment is assigned to a medium to large impact group.

Enhancing aid to low income students

Georgia's Hope Scholarships and Indiana's 21st Century Scholars program are two examples of state efforts to increase college participation by low income students. Funded by a state lottery, the Hope Scholarships covering tuition at Georgia public institutions of higher education are offered to any Georgia high school graduate who maintained at least a B average in high school. This program has received extensive scrutiny, and some observers note that many of the recipients of the Hope Scholarships probably would have attended college without the state assistance. Without targeting based on need, it represents a large subsidy to Georgia's middle class.¹⁴ The second example gets better marks for efficiency. Indiana's 21st Century Scholars program offers similar scholarships to a more targeted groups of high school students, those who qualified for free and reduced price lunches in 8th grade and who maintained at least a C average in high school along with certain other eligibility requirements. Other states have emulated aspects these two programs. The Indiana approach is interesting because it extends access to students whose financial position might prevent going on to college. Because of the narrow focus on disadvantaged students, the budget costs have been modest and predictable. The program is costing the state \$17 million in recent years, a relatively small proportion of the \$160 million in total state tuition aid costs.¹⁵ Given the evidence reviewed in this paper on returns to investment in college education, the 21st Century Scholar model appears to be a program with modest costs but substantial impact – at least a medium and perhaps high return program. However, no rate of return estimates for this or comparable programs have been found, and caution suggests keeping it in the medium return category.

¹⁴ See for example critical comments in a newsletter from the National Center for Public Policy and Higher Education, "HOPE springs eternal," *National Crosstalk*, Spring 2003 (<http://www.highereducation.org/crosstalk/ct0303/news0303-hope.shtml>).

¹⁵ <http://www.highereducation.org/crosstalk/ct0106/news0106-indiana.shtml>

Gándara (2005) makes a case for special attention to high achieving Latino high school students, noting that they often come from disadvantaged homes. She suggests a number of policy options including counseling, access to social services, and programs to ensure mastery of college level English skills. Her arguments can be extended to other minority youth from low socioeconomic status households. The importance of dealing with this issue has been stressed above. The costs of added social service, counseling, and tailored language skill programs may be relatively modest per student, and the general returns to higher education literature suggests a positive outcome. However, given the growing number of minority students in many school districts across the state, the aggregate costs to school districts or the state budget could be significant. With no track record of success for the options Gándara recommends, this option is placed in the medium outcomes category. However, if successful, such programs could jump into the high returns category. Washington's growing Hispanic population suggests that this could be a very important investment to consider.

Training for dislocated workers

Hollenbeck's various studies suggest that workforce training programs for dislocated adult workers also belong in the medium rate of return policy options category. The GAO finding that evaluation research is generally deficient should be considered, but the work of Hollenbeck and his various colleagues suggests positive benefit-cost results for various federally-funded programs. If there is evidence of unmet need among displaced workers, the state could consider augmenting federal programs to permit longer training programs or to develop specialized efforts in new fields to match emerging industry needs.

Low Rate of Return Options

The options described below are likely to be controversial due to placement of the programs in the low return category. The available evidence does suggest that the economic returns on public investment will be lower than the economic returns for the investment options described in the high and medium return sections. However, the social returns may be significant and the increasing number of poorly educated people living in the state, often minority group members and often recent immigrants from impoverished or war-ravaged countries suggests needs the state cannot ignore, and potential future social assistance and criminal justice costs if the education needs of these populations are not dealt with. In fact, two state studies, one from California (Brady et al. 2005) and one from Texas (Murdock et al. 2002), as well as a report from the National Association of Manufacturers (2005), suggest that if state and federal programs fail to provide basic skills to poorly educated immigrant adults, productivity growth will slip, imposing a substantial social cost. The returns suggested by the literature may be low, but the imperative to deal with these issues is great!

Basic Education and English As Second Language Programs for Adults

Prince and Jenkins (2005) conducted the "tipping point" study, trying to identify key leverage points at which public investments can have substantial impacts on the future earnings of low skill adults. They assembled data on workforce outcomes 5 years after

students first enrolled at a Washington community or technical college, including students who enrolled in college credit and adult skills programs including Adult Basic Education (ABE) and English as a Second Language (ESL). About a third of these students had previously earned a high school diploma or GED, and at least one third had not previously earned a diploma or GED. Only 13 percent the students who started out in an ESL program went on to college credit courses. About 30 percent of the students who started in adult basic education programs went on to college credit courses. The workforce outcomes data showed that those who started without a diploma or GED but made it through at least one year of college credit courses had earnings substantially higher than comparable students who earned less than 10 credits -- \$7,000 higher for those who started in ESL and \$8,500 higher for those who started in ABE. In contrast students who already had a high school diploma when they first enrolled at a community college and who got through at least a year of college credit courses had earnings \$1700 higher than students who earned less than 10 credits. GED holders who entered community college and got through at least one year of college coursework had earnings \$2500 higher than students who earned less than 10 credits. The authors conclude that earning at least a year of college credit is the tipping point leading to higher wages,¹⁶ and that the tipping point effect is larger for students with the least prior education. Unfortunately their data also show that few entering students lacking a diploma or GED actually earn a year or more of college credit. Therefore the key intervention needed is a program that will keep more students in college for a longer period to earn at least a year of college credit.

Staff at the State Board for Community and Technical Colleges feel that they have designed the needed program and are seeing early signs of success. The program is called I-BEST, an acronym for Integrating Basic Education with Skills Training. I-BEST programs at several colleges show excellent results and more colleges are adopting this program. If subsequent evaluations confirm early results, this program may qualify as a medium return program, although it is a high cost program requiring two instructors in the classroom much of the time. Cost factors may keep it in the low returns category even if proven efficacious. Prior attempts to deal with the education problems of adults lacking basic education or English language skills have not been very efficacious and would have to be placed in the low returns category. Other research suggests that earning a GED alone is not an effective investment to raise subsequent earnings (Heckman and LaFontaine, 2006).

Educating prisoners

Coley and Barton (2006) make a case for education of prisoners during their incarceration and suggest that there may be positive net returns due to lower subsequent re-incarceration rates. However, they do not make any quantitative projections of the potential savings. Keeping students in high school has been associated with lower future crime rates; Moretti & Lochner suggested that a 1% increase in high school graduation rates would produce savings of \$2100, less than a third of what Washington spends

¹⁶ The tipping point effect is confirmed by Marcotte et al. (2005) using data from the National Educational Longitudinal Study; these authors found that a half year of study at a community college had no impact on earnings, while completing at least a year of study earn 5 to 10 percent more.

annually on each K-12 student. Moretti & Lochner's findings, combined with current budget data, suggest that prisoner education is a low return investment. However, given burgeoning criminal justice system costs, it may be an important investment to consider, especially if Coley and Barton are correct in thinking that the extra costs of education may be offset by lower future incarceration costs, leading to a modestly positive net outcome.

Summary and Conclusions

A vast literature on economic returns to education documents higher earnings for college graduates than for individuals who do not advance beyond high school. The progression in earnings starts with a year or more of community college education, an experience associated with earnings increases of about 10 percent. Completing an associates degree may raise earnings by 25 percent or more relative to high school graduation, and completing a baccalaureate degree is associated with earnings 40-60 percent higher than a high school graduate. These economic returns have been confirmed in studies in many countries. Despite fears in the mid-1970s that colleges and universities were producing too many college graduates relative to projected employer demand, the labor market has handsomely rewarded graduating students with higher wages in the subsequent decades, producing evidence of a widening gap in wages of graduates relative to high school graduates.

Longitudinal studies of early childhood program participants from disadvantaged families also show an economic return on the order of 15 percent or higher. Starting the education process earlier compensates for in-home influences on cognitive development that may be missing in many families.

Other studies document social returns to education. Reductions in criminal activity results in avoided incarceration costs as well as providing individuals with access to better paying jobs. A number of studies confirm this association, as well as health effects due to lower rates of smoking and other favorable life style choices more frequently made as educational attainment levels rise. In addition, several spillover or externality impacts have been shown, including higher wages for non-college graduates in cities with a higher percentage of college degree holders in the workforce, as well as higher productivity levels in manufacturing companies employing a more highly educated workforce. These externality effects imply that private sector decision-makers, including both students and for-profit firms, are likely to under-invest in education. In fact, since graduates may move to another state after completing a degree, there is an argument that only the federal government is in a position to internalize all of these effects and come to a rational decision about the optimal level of investment. A state, knowing that some of its college students may leave after graduation, may tend to under-invest particularly at the baccalaureate and higher levels.

The evidence of economic and social returns to higher education is vast and impressive. This literature may aid decision-makers struggling with difficult issues of how much higher education capacity to provide, what kinds of capacity (baccalaureate vs. community college; scientific/technical vs. humanities, etc.). However, the estimates of

rates of return reviewed in this paper are unlikely to relieve legislators and executive branch leaders of the need to make difficult decisions regarding whether to provide more capacity that will aid those likely to contribute higher earnings in dynamic sectors of the economy vs. expansion of basic education that will aid disadvantaged students and adults seeking a lower level education needed to break into a living wage segment of the labor market. The evidence provided above is somewhat incomplete and varies in the extent to which costs are considered as well as benefits, making a precise rank ordering of investment options impossible.

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March 2007

2007 Legislative Update

The most current information regarding the 2007 legislative session will be provided at the meeting on March 22.



March 2007

Budget Update

The House Appropriations Committee will release its budget proposal shortly before the March 22 HECB meeting. At that time, HECB staff will brief the board and compare budget proposals from the Higher Education Coordinating Board, the office of the governor, and the House Appropriations Committee.

Briefing materials will be provided on March 22.

March 2007

DRAFT - Proprietary School Eligibility Criteria to Participate in the State Need Grant Program

Overview

The HECB is the administrator of all state student aid programs. It is concerned with both the stewardship of state funds and with facilitating successful student outcomes.

To participate in the State Need Grant (SNG) program, a school must be administratively capable and demonstrate a stability that ensures students will have the opportunity to achieve a certificate or degree. While most schools in the private vocational sector have consistently met these measures, a few schools have been notable exceptions.

Over the past ten months, staff has engaged in a collaborative process with representatives of the private vocational sector to review the eligibility criteria governing the participation of for-profit schools in the State Need Grant program. The purpose of the review was to set standards that allow both students and the board to have confidence in the capability and stability of the participating schools as well as in the educational outcomes of students in these schools.

The result is a set of proposed amendments to existing rules that better detail the board's expectations of proprietary schools participating in the grant program. Staff seeks permission to begin the formal rule-making process.

Background

Currently, 13 private career schools participate in the State Need Grant (SNG) program. In 2004-05, the participating private vocational schools enrolled about 8,000 students. Of this number, more than 2,700 students received about \$4.2 million in aid through the SNG program.

Generally, private vocational schools participating in the SNG program have awarded certificates or associate degrees. In five cases, however, schools are also offering baccalaureate degree programs.

Since 1980, about 28 for-profit schools have participated in the SNG program. Since that time eleven have gone out of business, generally with little or no warning. These include the American College of Professional Education (ACPE) in 2000, BCTI in 2005, and Court Reporting Institute in 2006. Both ACPE and BCTI closed their doors while owing substantial

repayments to the state for improperly disbursed student aid. Those repayments were never received by the state.

HECB staff estimates that at least 19 additional schools may be eligible to apply for participation in the SNG program. At this time, one school has submitted an application while three other schools representing six separate campuses have indicated that they will soon submit applications. In addition, more schools will likely be established in Washington over the next few years that will also be eligible to apply.

The Proposed Rules

While the board examines all schools participating in the SNG program on a variety of administrative criteria, the proposed rules offer greater detail and clarity on the expectations for schools organized as for-profit entities. The draft also proposes a performance measure regarding student completion and placement that is not applied to schools in other sectors.

With the exception of the term “probation” which is applicable to any school, the greater detail in these proposed rules apply only to for-profit institutions.

The proposed rules cover four basic areas:

1. Requiring full participation in federal student aid programs
2. Examination of administrative capability
3. Examination of financial stability
4. Defines the actions and process for addressing issues related to administration, performance, or financial stability.

Participation in federal student aid programs

A school is not eligible to participate in the SNG program if the US Department of Education “conditionally” certifies it, because of a failure to meet federal administrative or financial standards.

Administrative capability

A school must be capable of administering the SNG program. Examination of these criteria will include:

- (a) adequacy of staffing levels,
- (b) staff training and experience in administering student financial aid programs and turnover in key personnel,
- (c) compliance with the standards of administrative capability specified for purposes of federal Title IV program eligibility,
- (d) pending legal regulatory issues,

- (e) written student complaints,
- (f) compliance with state aid program regulations and guidelines, and
- (g) ability to maintain electronic systems to support state aid program tracking, payment requests and reporting obligations.

Performance levels

A school must maintain an acceptable rate of student completion as well as job placement. Where available, the board will rely on the standards of the school's accrediting agency. When accrediting agency standards are not available, the board will establish performance levels with the school. When evaluating the performance levels, the board will consider multiple year averages.

Financial and resource stability

A participating school's financial stability will be evaluated using:

- a) the school's annual financial statements,
- b) the Department of Education's composite financial score,
- c) federal program review findings,
- d) state reauthorization or re-licensing reports,
- e) accrediting agency show cause or other findings,
- f) enrollments by program and intent to terminate an existing program, and
- g) enrollment trends.

Corrective actions

When necessary, the board may take the following actions:

- a) Request additional information as well as give the school the opportunity to provide additional clarifying information.
- b) Place an institution in a probationary status and specify the corrective actions that need to occur.
- c) Require a letter of credit or bond, or
- d) Limit, suspend, or terminate an institution's participation.

Probation

The proposed rules names “probation” as a specific condition indicating the board has determined that a school has one or more significant deficiencies for which corrective action is required within a specified time period. This is a condition that can apply to any school, not just for-profit institutions.

RESOLUTION NO. 07-06

WHEREAS, The Board is the administrator of state student aid programs; and

WHEREAS, The Board is concerned about both the stewardship of state funds as well as the educational outcomes of students; and

WHEREAS, Private, for-profit, career schools participate in the State Need Grant program; and

WHEREAS, While most schools in this sector have demonstrated long-term administrative capability, financial stability, and satisfactory performance outcomes, a small number have abruptly closed, leaving students with incomplete curriculums, devalued degrees, and on occasion, school debts to the state for improperly disbursed aid.; and

WHEREAS, The HECB and the Washington Association of Private Career and Vocational schools have been working collaboratively to better define the criteria by which for-profit institutions will be evaluated for initial and ongoing participation in the need grant program; and

WHEREAS, This effort is intended to better enable the HECB to monitor for-profit institutions, detect and address issues in a timely manner, and give students and the state greater confidence in the value of the investment of state funds for attendance at private vocational and career schools;

THEREFORE, BE IT RESOLVED, That the HECB staff is authorized to begin the formal rule making process to amend the existing Washington Administrative Code, with an anticipated public hearing in May 2007, followed by adoption at the Board's June 2007 meeting.

Adopted:

March 22, 2007

Attest:

Bill Grinstein, Chair

Betti Sheldon, Secretary

| Draft Private Vocational Institutional Participation Standards | |
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| Draft Regulations | Notes |
| <p>250-20-013 Institutional eligibility.</p> <p>(1) For an otherwise eligible student to receive a state need grant, he or she must be enrolled in an eligible program at a postsecondary institution approved by the Higher Education Coordinating Board for participation in the state need grant program. To be eligible to participate, a postsecondary institution must:</p> <p style="padding-left: 40px;">(a) Be a postsecondary institution as defined in 250-20-021 (3)</p> <p style="padding-left: 40px;">(b) Participate in the federal Title IV student financial aid programs, including, at a minimum, the Federal Pell Grant program.</p> <p>(2) In addition, a proprietary institution must demonstrate to the satisfaction of the board:</p> <p style="padding-left: 40px;">(a) That it is certified for participation in the federal Title IV student financial aid programs. A proprietary institution that is provisionally certified due to its failure to meet standards of administrative capability or financial responsibility is not eligible to participate in the state need grant program. Institutions which have been limited or suspended from Title IV programs are not eligible to participate in the state need grant program. The board reserves the right to make exceptions for special circumstances such as ownership changes or a change in the accrediting agency.</p> <p style="padding-left: 40px;">(b) That it is capable of properly administering the state need grant program. In making this determination, the board will consider such factors as the institution's:</p> <p style="padding-left: 80px;">(i) adequacy of staffing levels,</p> <p style="padding-left: 80px;">(ii) staff training and experience in administering student financial aid programs and turnover in key personnel,</p> <p style="padding-left: 80px;">(iii) compliance with the standards of administrative capability specified for</p> | <p>Eligible students must attend eligible schools and enroll in eligible programs. Eligible schools must meet the following criteria:</p> <p>Be a public college or be a non-state school offering post-secondary education which also has full institutional accreditation through an agency recognized by the board. Branch campuses of out-of-state institutions must be separately accredited or have been offering class room education in Washington for at least 20 years and have enrollment of 700 FTE's or greater.</p> <p>All schools must at least participate in the federal Pell program.</p> <p>For-Profit Schools must meet the following additional criteria:</p> <p>It is fully certified. Schools with provisional certification due to administrative capability or whose certifications has been limited or suspended are not eligible to participate.</p> <p>The school is administratively capable.</p> <p>Board will consider:</p> <ol style="list-style-type: none"> 1. Staffing levels 2. Staff training and experience in SFA programs 3. Evaluation of administrative capability using federal standards. 4. Compliance with state program regulations and guidelines 5. Have technological systems in place to fully comply with system requirements. |

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| <p>purposes of federal Title IV program eligibility,</p> <ul style="list-style-type: none"> (iv) pending legal regulatory issues, (vi) written student complaints, (vii) compliance with state aid program regulations and guidelines, (viii) ability to maintain electronic systems to support state aid program tracking, payment requests and reporting obligations. <p>(c) That it is maintaining acceptable performance levels. In making this determination the board will consider such factors as the institution's:</p> <ul style="list-style-type: none"> (i) student completion rate, (ii) student placement rate, and (iii) student loan cohort default rate. <p>In evaluating completion and placement standards the board will rely on the standards of the institution's accrediting agency or the standard established between the board and the institution at the time the participation agreement is signed. Multiple year averages will be considered in evaluating these standards. Each participating institution will submit its annual accreditation report to the board.</p> <p>(d) That it is financially stable and has adequate financial resources to provide the services described in its official publications and statements. Institutions must meet the administrative and financial standards for participation in the federal Title IV programs. In making this determination the board will consider such factors as:</p> <ul style="list-style-type: none"> (i.) the school's annual financial statements, (ii.) the Department of Education's composite financial score, (iii.) federal program review findings, (iv.) state reauthorization or re-licensing reports, (v.) accrediting agency show cause or other findings, (vi.) enrollments by program and intent to terminate an existing program, and (vii.) enrollment trends. | <p>The school maintains acceptable performance standards including:</p> <ul style="list-style-type: none"> 1. Completion and placement rates 2. Federal cohort default rates <p>The board will use accreditor's standards to evaluate completion and placement.</p> <p>If no comparable accreditor standard exists, the board will establish benchmarks based on applicable industry standards for the school's type and curriculum offerings.</p> <p>The school is financially stable and has the financial strength to provide the services described in its catalog.</p> <p>Factors used to evaluate stability include:</p> <ul style="list-style-type: none"> 1. financial statements 2. USED composite score 3. program review findings 4. accreditor findings 5. legal or regulatory issues 6. formal student complaints 7. enrollment trends |
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| <p>(e) If evaluation of an institution’s administrative capability, performance level, or financial strength results in concerns about the institution’s participation in the state aid programs, the board may:</p> <ul style="list-style-type: none"> (i) request additional information as well as give the school with the opportunity to provide additional clarifying information. (ii) place an institution in a probationary status and specify the corrective actions which need to occur. (iii) require a letter of credit or bond, or (iv) limit, suspend, or terminate an institution’s participation in accordance with WAC 250-20-081. <p>(3) “Probation” indicates the board has determined that the school has one or more significant deficiencies for which corrective action is required within a specified time period.</p> <p>(4) The school must renew its eligibility each year under these standards or as requested by the board. A school that has lost eligibility to participate must complete a new application for reconsideration.</p> <p>(5) Nothing in this section shall prevent the board, in the exercise of its sound discretion, from denying eligibility or terminating the participation of an institution which the board determines is unable to properly administer the program or provide advertised services to its students.</p> <p>(7) If an institution disagrees with actions taken by the board the institution can appeal the action per the procedure outlined in WAC 250-20-081.</p> | <p>Actions available to the board if it has concerns about the school’s ability to meet the participation standards:</p> <ol style="list-style-type: none"> 1. request additional information 2. place on probation and specifying the corrective actions that need to occur and the time frame for when they need to be completed. 3. require a letter of credit or bond 4. limit, suspend, or terminate <p>Probation means (Applies to all schools)</p> <p>Eligibility must be renewed each year or as requested by the board.</p> <p>The board may base action on other factors if necessary.</p> <p>Institutions can appeal.</p> |
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