

Economic Development and Education
in the Context of the US-Mexico Borderlands

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Paper prepared for:
The U.S.-Mexico Border: A Discussion on Sub-National Policy Options
June 18, 2009
Arizona State University
Tempe, Ariz.

DRAFT

Woodrow Wilson International Center for Scholars, Mexico Institute
and
El Colegio de la Frontera Norte

San Diego State University is about 20 minutes from Tijuana, Baja California. It aggressively supports study abroad and has a risk management program for students traveling outside the US. Among other things, our program requires students to have emergency evacuation insurance whenever they leave the country for university related reasons. More than one of my students has protested that they don't see the point of the insurance since, if something happens to them while doing an internship or research in Tijuana, they do not want to come back to the US: they and their family live on the Mexican side of the border. Obviously, the rules were not made for them.

But who were they made for? It is not a hard question to answer. They were made in a previous era, during a time when very few US border institutions thought it was educationally valuable and regionally important for their students to learn about society, the arts, business, and education on the Mexican side. The rules were made for a group of students, faculty, and administrators who never imagined a transnational population. Nor was it apparent then, as it is now, that the prosperity of each side of the border is increasingly tied to outcomes and conditions on the other side.

There is a large back-log of tasks in the educational arena that must be completed if we are to improve conditions on both sides of the border. As with our highways, bridges, energy network and other physical infrastructure, the social infrastructure of education needs new investment as well. Modernizing our risk management procedures so that students in border universities are no longer subjected to the same procedures as students traveling to the furthest outreaches of Asia or Africa, is only a small part of it.

Universities and colleges

At the risk of killing a good idea by citing the European Union, it is worth considering the role student mobility has played in the EU's recent history. For more than 50 years, the EU has extended its membership and deepened its integration. Its success is in spite of some of the most devastating violence in human history during the five decade prior to the Treaty of Rome. How did it manage to survive and deepen transnational collaboration in spite of a history of war and genocide? The answer is multidimensional, contentious, and would take volumes, but one thing we know is that the EU built political, social, professional, and commercial networks across national borders. Student mobility is fundamental to that process.

There are several programs in the EU that are worth considering as model starting points for adaptation to US and Mexican institutions and conditions. The most prominent is the Erasmus program, which began in 1987. Since then, more than 1.9 million students have participated, and over 90% of all EU based universities are collaborators. With an annual budget of around 400 million euro (\$540 million), Erasmus provides student support for language acquisition and study abroad, along with faculty support for teaching abroad. Other programs are Erasmus Mundus to support study abroad for masters level education, Leonardo da Vinci for internships and vocational training (with a goal of 80,000 placements a year), Comenius for teacher and school administrator training, and Youth in Action to support voluntary service abroad (European Commission, 2008, 2009). Each

of these programs provide financial support and administrative coordination for mobility across national borders of students, school administrators, interns, and youth volunteers. The academic programs each require active program management by participating universities.

Program goals vary, but each of them support language acquisition and education or training. Cultural competencies are built, not in general, which is a vacuous but often used concept in US higher education, but rather in specific ways that are tied to learning a language, living in a foreign country, and becoming knowledgeable about a specific place. Students, interns, and volunteers meet people and develop networks of friends and co-workers. They gain institutional knowledge about different systems and they learn about the opportunities and constraints that exist in a society not their own. Many, maybe even most, of these experiences and contacts do not pay immediate dividends, but as students and volunteers mature into working professionals, their attitudes and ideas towards other peoples and countries are more sophisticated and informed than the average for people who have never had a similar experience.

Student mobility in the US-Mexico border region and in the context of the ongoing narco-wars in border cities is problematic and cannot be ignored because it is on the minds of most US students, faculty, and administrators when they think about crossing the border. The focus of this short piece is over the long term, however, and can be read as an argument for greater mobility to places where university administrators, faculty, and students, feel comfortable. Not all border cities are experiencing the same set of conditions, and even in those that are more engulfed by the consequences of US drug consumption and illegal arms sales, it is possible to find arrangements that protect student safety.

The advantage of student mobility programs for the border region are clear. Indeed, the entire NAFTA region would benefit greatly from these types of relatively inexpensive programs. Erasmus, for example, is by far the largest and costs about \$540 million per year, or a little over 1 percent of the annual budget of the Department of Homeland Security (Department of Homeland security, no date; European Commission, 2009). A border program which is 10 percent of the size of Erasmus would pay dividends to the US and Mexico that far exceed, at the margin, the same amount spent on Homeland Security. Trans-border networks embodied in the knowledge and experiences of the region's college graduates are more than an individual advantage as they offer spillovers into public administration, health care, education, criminal justice and law, commerce, and virtually every area of economic activity.

One objection is that student mobility in the border region generates spillover effects outside the border. This is true if students do not remain in the border region. The "leakage" of externalities to regions outside the border is still a gain for Mexico and the US, but the loss of benefits to the border varies by the type of institution students attend. For example, between two-thirds and three-fourths of the students graduating with a BA

or BS from San Diego State University find their first professional job in the San Diego region. Similarly, other border area college students at public universities that mainly serve a regional population, as opposed to a national one, are also likely to remain in the region after graduation. This includes, for example, public institutions such as the Universidad Autónoma de Baja California, the University of Texas, El Paso, the Universidad Autónoma de Ciudad Juárez, and some private schools such as the CETYS Universidad.

Beyond funding constraints which limit student mobility, there are several institutional obstacles to the creation of a set of border programs. Within border universities, the need for these programs and the potential regional benefits have only recently begun to be appreciated. Consequently, there are few faculty or administrators who have been encouraged to work on creating programs, and border universities have not made an effort to make their curriculum processes, including admission procedures, transparent and flexible. Course articulation is often a problem, and not uncommonly there are additional problems in transferring courses back to the home university, difficulties in understanding foreign transcripts with different grading systems, and problems in making sense of foreign qualifications when standards are not the same. Language development courses for foreign students are beyond the budgetary reach of most universities, and yet student success depends on an adequate grasp of the language. On the US-side border region, visas for part-time work or study are all but impossible to obtain, so the option of taking one or two classes a semester, or working part-time, is currently not available. Furthermore, universities on both sides have under-staffed administrative offices for supporting students going abroad or coming from abroad, and they rely on the students themselves to do much of the paperwork and recruitment, often neglecting the border region completely in favor of more exotic locales further from home which are more traditional sites for study abroad.

Some of these problems are very inexpensive to fix and are mainly a coordination problem. For example, the issue of language acquisition for students preparing to do a semester or a year in a university on the other side of the border can be remedied through intensive summer courses taught by graduate students or faculty. This would be on top of a base of language studies and would be a final step to ensure that students grasp the language well enough to succeed. Such a program starts a cascade of additional complications, however, such as the issue of border crossing cards and student visas for part-time students in the US. As with many of the issues raised in this short paper, the human resources are available, but we lack creative thinking and institutional flexibility, both in our universities and in our immigration control bureaucracies.

Ironically, many of these problems exist because we lack professionally trained staff who are familiar with the institutions and procedures across the border, and who have contacts they can call when a problem arises—exactly what we need to create. Most, if not all of these constraints and obstacles could easily be overcome with funding to support border universities that serve a regional population and that voluntarily agree to participate. In the EU, the funding control and administration is channeled through each participating

universities Office of International Relations. Similar offices already exist in many, if not all, border universities.

In an ideal world, these opportunities would already exist and they would apply to the entire NAFTA region, not just the border. However, since the focus of this workshop is the border, this proposal does not extend beyond that area. Furthermore, unless programs are created across North America, there is a good reason for keeping funding focused on border institutions. Namely, student mobility requires coordination between international programs offices, and students coming from or going to non-participating universities will create coordination problems.

Could these programs work? Some already do, on a much smaller scale than is necessary. For example, San Diego State University and Universidad Autónoma de Baja California began the first transnational dual degree between the United States and Mexico in 1994. The program is still running and is called the Mexus/International Business program. Students spend two years “on the other side” and obtain two diplomas, one from each university. Since its inception, the Mexus program has expanded to include CETYS Universidad and other universities. The Mexus program requires more of students than the EU’s Erasmus Program, but it is an example of the kind of creative thinking that is necessary in order to bring a closer set of working relationships to twin cities along the border.

Education below the university level

The observable and measurable educational gaps in K-12 education in the border region are fundamental obstacles to regional prosperity. While the border can rightly claim a number of highly regarded universities, research and development centers, and advanced manufacturing capabilities, the education levels embodied in the population are well below those in most high income countries and regions of the world. The educational gaps can be characterized in three ways: a quantity gap, a quality gap, and a basic functioning gap. The quantity gap relates to the number of years of schooling embodied in the population, including the share that completes a given level such as high school or *educación media superior*.¹ The quality gap refers to the performance differences of groups with similar levels of schooling, and the basic functioning gap refers to language acquisition and the ability to speak English (US) or Spanish (Mexico) either well or very well.

The most serious quantity gap occurs in the rate of completion of high school or *educación media superior*. Table 1 shows the completion rates for the 2000 population,

¹ According to the definition used by INEGI, *educación media superior* includes the *bachillerato* (high school diploma) and its equivalents, plus technical and commercial education beyond the level of secondary school (middle school in the US) and basic teacher training (*normal básica*). See INEGI, 2007.

25 or older.² The data allow a comparison between border counties or municipios in each of the border states, along with national rates along the entire border and in the country as a whole. Several patterns are observable in Table 1. First, educación media superior lags well behind the equivalent (high school) level of schooling in the US. At both the national and border levels, the share of the population with this level of schooling is 2.5 times greater in the US, which itself, does not do well in international comparisons of OECD countries (see below). Second, in 4 of 6 Mexican states, and 3 of 4 US states, border counties and municipios fall below their national levels, often by a wide margin. For example, border counties and municipios in Coahuila, Texas, and New Mexico all fall 5 percentage points below their respective national averages.

Table 1: Population share with high school or educación media superior, ages 25+, 2000

	<i>Border</i>	
	<i>Counties/Municipios</i>	<i>State/Nation</i>
Mexico	0.30	0.30
Baja California	0.32	0.32
Sonora	0.29	0.33
Chihuahua	0.28	0.27
Coahuila	0.25	0.33
Nuevo Leon	0.19	0.37
Tamaulipas	0.31	0.34
United States	0.74	0.80
California	0.82	0.77
Arizona	0.80	0.81
New Mexico	0.70	0.79
Texas	0.57	0.76

Source: Anderson and Gerber (2008).

On the Mexican side of the border, the problem is national in scope. Mexico has invested in literacy and university level education, but has not yet begun to approximate OECD levels of high school completion rates. This goes beyond issues of individual achievement since a highly literate work force is a necessary component to industrial success. For example, a large share of workers with high school education is usually thought to have been one of the keys to East Asian export success (World Bank, 1993).

The data in Table 1 is for the population 25 or older in 2000 and does not show what is happening to today's age cohort of higher secondary students. Mexico has increased the share of its population going on to educación media superior or its equivalent, but at 42 percent of the age cohort, it is still less than half the OECD average of 83 percent (OECD, 2009). The US figure for the current cohort is 77 percent, which is significantly

² Since the data is for 2000, and only for the population 25 and older, Table 1 does not pick up recent changes in the higher secondary age cohort. See below for a discussion of more current data.

below the OECD average. This is a decline from the 2000 Census figures for the population 25 or older, but may be a statistical result due to different data sources (Census versus OECD estimates). Regardless, the US lags in its high school completion rates, although not as grave as in Mexico.

Lower educational attainment in the US border region is partly due to migration patterns. According to the Mexican population count of 2005, the average Mexican citizen, age 15 or older, has 8.1 years of schooling (INEGI, 2005). If migrants to the border region are average, then US border communities are constantly renewed by migrants with significantly less schooling than the US national average. Anderson and Gerber (2008) show that there is a strong negative correlation between the number of international migrants in a US border county and the average years of schooling of county residents. This should not be taken as an ideological statement, but rather as a frank assessment of the needs of border counties for additional educational resources, particularly English language classes (see below), adult education, and vocational training.

The problem of less schooling is aggravated by the problem of lower schooling quality. Quality measures parallel the quantity measures, with the US falling below the OECD average, and Mexico falling dramatically below. The OECD's Program of International Student Assessment (PISA) ranks countries based on the knowledge and skills of 15 year olds who are administered science and mathematics tests. Rankings are against 57-country sample that includes close to 90 percent of the world's population. Mexico, overall, ranked between 46th and 48th (out of 57) in 2006, while the US (science test only) was between 32nd and 36th (OECD, 2007). Both are well below the sample average. It is difficult to translate national results into border results, but most indicators would support the hypothesis that educational quality in the Mexican border region is similar to its national average, while the US border region is likely to fall significantly below its national average.

The OECD performance rankings point to problems not only at the local level of the border, but to national-level issues. As such, it is useful to keep them in mind, but there is a limited scope for acting on these issues with border policies. Returning to a border focus, there is a basic functioning gap on the US side that is related to the share of the population that speaks English "less than well," to use the US Census terminology. Consider the ten US border counties with 96 percent of the border population.³ Seven out of 10 counties have better high school completion rates in the population that speaks English at home than in the population that does not speak English at home. Similarly, the English speaking population in 5 of 10 counties are more likely to graduate from college than the same age cohort in the rest of the US. This is not an ideological point, but an empirical one. The forces that produce this outcome are complex and multidimensional and it should be clear that citizenship on the border region requires

³ These are Imperial and San Diego counties in California; Cochise, Pima, and Yuma counties in Arizona; Dona Ana county in New Mexico; and Cameron, El Paso, Hidalgo, and Webb counties in Texas. Data is from US Census population estimates (US Census, 2007b).

more Spanish, not less. At the same time, it requires a lot more English. English is not a luxury, and if preferences for Spanish are at the expense of learning English, they impose large costs on the communities and individuals. These costs are levied in the form of lower wages (even in US communities where Spanish is widely spoken) and most likely, lower investment as well (McManus, Gould and Welch, 1983; Mora and Dávila, 1998; Dávila and Mora, 2000).

Policies to address these issues are relatively straightforward. First, they include more ESL classes that charge little or nothing to attend and that are offered at times convenient for working people. Given that there are external economic benefits, it is economically unreasonable to expect the full costs of these programs to be borne by their users. Second, they include more outreach and information describing the characteristics of the US public school system and the ways in which it deviates from Mexico's system. Presumably, many immigrant parents are unaware of the importance of traditional US institutions such as Open House Night and Back to School Night. They are also unlikely to realize that they need to be active participants in their children's education. Third, since many immigrant parents do not speak English and have limited education themselves, after school programs that offer free tutoring and educational counseling are needed. Fourth, teachers on both sides of the border need to be aware of the curriculum, culture, and expectations of schools "on the other side." Since immigration is continuous, the programs must be as well.

Concluding remarks

The last point about the need for teachers to know each other's systems of education clarifies further why a system of student mobility in the region's colleges and universities would pay future dividends. If future teachers are knowledgeable about the educational system across the border, if they have cross border social and professional networks, and if they have the funding to put their knowledge to use, then border communities will have the tools that are necessary to build more effective learning environments.

Funding is essential for the programs outlined above, but it is not the only requirement. Border schools and universities are driven by their state and national priorities, and have not yet begun to systematically think about their role in fostering prosperity in a transnational regional context. They are filled with incredibly bright people, but faculty and administrators respond to incentives, like everyone else, and few incentives point towards working on cross border issues. This is not insurmountable however, as it is remarkable how much work academics will do for very little money, particularly in comparison to, say, bankers and securities traders.

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