

Analysis of why and how to implement a program like Teach for America in Chile

Veronica Cabezas G.

Teachers College, Columbia University

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EXECUTIVE SUMMARY

It has come again to the public attention the problems with Chile's educational system. During the last years the discussion has been centered on how to improve the Chilean educational system, where academia and different stakeholders of the educational system have pushed for structural changes for improving academic achievement and reduce inequalities of the system. Consequently, the Program of Public Policy UC has requested a study that explores the need and feasibility of creating a program similar to "Teach for America" in Chile as an alternative route into the classroom. Their objective, as leading reference in the public opinion, is to study with more depth an innovative program that can contribute to reduce the inequities of the Chilean educational system.

The following brief presents relevant information to answer why a program like TFA is necessary in Chile, the conditions that the country has to make this model relevant and provide the main recommendation of an implementation plan. The information in this brief will also provide the Program of Public Policy UC with research-based information than can disseminate in order to foster other policy actors to become engage with the program.

To research this question, three sources of data are utilized. First, a review of relevant literature serves as the primary source of data in this report, and it provides a comprehensive understanding of the salient issues, such as TFA's effectiveness data of the teacher force in Chile. Next, to supplement the literature, exploratory interviews were conducted. Finally, data was obtained from different Chilean agencies, basically through official web pages.

Recommendations

Based on the findings this brief recommends the following:

- #1 The Program of Public Policy UC should consider implementing (or fostering the implementation) of a program similar to Teach for America in Chile as a method of alleviating education inequalities
 - Chile suffers from educational inequities and TFA has shown to be an effective program in reducing the achievement gap. Additionally, Chile meets the necessary criteria to make TFA's model relevant.
- #2 Teach for America in Chile should be implemented by an organization (or group of people) with strong local leadership capacity
 - TFA-Chile is a very challenging project that needs motivated and highly-qualified leaders to be able to implement the program.
- #3 The Program of Public Policy UC should look for "windows of opportunity" to start the program
 - The current law is very restrictive for professionals that do not have a teacher degree. The program should start in those municipalities, grades, subjects and schools where the teacher shortage exists.
- #4 The Program of Public Policy should consider a deeper analysis of the possible scope of the program in order to achieve the maximum number of high-quality recruited recent graduates.
 - An equilibrium between scope and highly-qualified applicants is crucial to impact schools and the country as a whole

INTRODUCTION

My policy brief will explore the possibility of creating a program similar to “Teach for America” in Chile as an alternative route into the classroom. Specifically, this policy brief will evaluate the real need of the program in the country. This is fundamental because a program cannot be effective at ameliorating a problem if there is no problem to begin with or if the program services are not actually related to the problem. Therefore, the question to be analyzed is the following: Is there a real need of a program like Teach for America in Chile? To research this question, I will analyze research that has been conducted in relation to demand/supply of the teacher force in Chile, teacher quality distribution, results of Teach for America in the US, and inequality of the educational system. The purpose of conducting and interpreting this research is fourfold: to analyze the effectiveness of TFA, to evaluate if Chile meets the necessary criteria to make the model relevant, to identify the possible weaknesses of the current educational system in relation to the teacher force and to provide recommendations, based on those findings, on the main guidelines of an implementation plan.

Education is currently one of Chilean government’s most pressing problems. Consequently, this is an appropriate time for the Public Policy Program UC to evaluate the possibility of a program like TFA in Chile and evaluate the need and possible implementation of a program with these characteristics. This memo would permit Politicas Publicas disseminate the importance of a program like TFA in Chile, explain why the program is necessary in Chile, the conditions that the country has to make the model relevant and encourage other non profit organizations, foundations, the business community and government institutions to build partnerships in order to develop and implement the program in Chile.

Background on the “Public Policy Program UC”: The Public Policy Program of the P. Universidad Catolica de Chile is a program born in 2002. The program has the objective to put the university as a leading reference in the public sector and foster an active dialogue with the society and the public world. The “Public Policy Program” has three main pillars: 1) PuentesUC Unit that has the responsibility of inserting the university in the municipality area, where public policies “touch reality”. To do this, they provide technical and professional support to municipalities through academic resources; 2) Applied Research Unit that promotes academic research that contribute with innovative solutions to public policy problems; 3) Teaching Unit that coordinates a Diploma and a Master in Public Policy.

METHODS

Three sources of data are utilized in this brief. First, a review of relevant literature serves as the primary source of data in this report, and it provides a comprehensive understanding of the salient issues. The literature is instrumental in understanding the effectiveness of Teach for America in the U.S, its main characteristics and provide information on relevant questions in the Chilean contexts. Next, to supplement the literature, exploratory interviews were conducted among TFA’s staff and TFA’s alumni. Additionally, exploratory interviews were conducted to staff that work in other “corps” type programs already existing in Chile, such as Servicio Pais’s and Jovenes al Servicio de Chile. These interviews gave perspective of significant issues in relation to scale and scope of existing youth programs in Chile. Finally, data was obtained from different Chilean web pages, such as the one from the Ministry of Development and Planning, Ministry of Finance and Ministry of Education.

WHAT IS “TEACH FOR AMERICA”?

“Teach for America” (TFA) was founded in 1989 to address the educational inequalities facing children in low-income communities across the country by recruiting academically able new college graduates, many of them from selective universities, into two-year teaching commitments. The program is particularly interested in candidates that have the potential capability of being effective teachers but in the absence of TFA would not consider a teaching career. They must be talented, have personal responsibility (own the solution), have strength on human values, have well-developed emotional skills, and commitment to the TFA mission. In contrast to other teacher certification programs, the main objective of TFA is to close the achievement gap by providing teachers to under-resourced schools and build a movement to eliminate educational inequity by enlisting the most promising future leaders in the effort.¹

Once the recruits have been accepted into the program, they are required to participate in a five-week summer program that provides student teaching and basic coursework. During the summer program, the participants also take full responsibility for a class of summer school students. TFA works with schools that serve a disadvantaged, largely minority population.

More than 17,000 individuals have joined Teach for America since 1990. Currently, 3,600 corps members teach in more than 1,000 schools in 22 communities, and the program has an increasing demand both from the possible future corps members and from schools across the country. The selection criteria though are very rigorous and try to consider the issues of corps diversity, leadership capacities and the ability of overcome difficulties.

The impact TFA it is expected to be in the short and in the long term. In the short term, through the two years that the corps members teach in under-deserve public schools obtaining the same or better results that other certified and uncertified teachers and collaborating with teacher shortage. Over the long-term, TFA has an impact on two levels: 1) By changing the career paths of the majority of their alumni, who remain involved over the long-term in the education field or in related efforts in low-income communities; 2) By building a force of leaders who assume positions of influence in all sectors and who have the perspective and commitment that comes from their teacher experience in under-served public schools.

For more about the history of Teach for America and how the program works see [Appendix 1](#).

LITERATURE REVIEW

Do TFA teachers improve (or, at least, not harm) student achievement relative to what would have happened in their absence?

TFA has been highly successful in attracting individuals that meet its standards and its members have expanded rapidly in recent years. Between 2000 and 2003, the TFA applicant pool grew almost fourfold (from 4,068 to 15,706) and the number of new corps members between 2000 and 2006 grew from 868 to 3,600. But, despite TFA’s rapid expansion, there is no agreement in different sectors of the country regarding TFA corps members results inside the classroom compared to other un-certified and certified teachers. Studies generally tend to contradict each others conclusions through the use of different quantitative and qualitative methodologies, as can be seen in [Appendix 2](#).

¹ Teach for America (2006). Growth Plan 2006-2010.

In relation to the contribution of TFA to the schools, communities and society as a whole, some authors support that TFA corps members that make a commitment for only two years, do not have the chance to make inroads or actually change anything. They argue that the corps members just try to do their best during two years -with many problems and failures- and then leave the teaching career to a high consulting position or graduate studies in a prestigious university. Detractors also highlight the lack of pedagogical training and knowledge of child development theories among TFA teachers. They also tend to believe that TFA demeans teaching by treating it as a Peace Corps-style rescue mission rather than a true profession with appropriate salaries to attract solid candidates. Hawley (1992), articulating the view of many others, claims that there is a body of subject-knowledge that needs to be learned prior to teaching. He and other teacher educators argue that it is unlikely that someone without training in subject matter methods could get in front of a class of students and be a successful teacher.

However, the most persuasive and robust evidence comes from a study done by Glazerman, Mayer and Decker (2006).² This is the first independent study of program structures in teacher preparation and alternatives to use an experimental design and a large nationwide sample to assess the impact of TFA recruitment and training on pupils' test gains. They develop a randomized controlled experiment, what is called the "gold standard" in evaluation methods, to study the impact of Teach for America on student achievement and other outcomes, in which the students were randomly assigned to classrooms within grades and within schools. The experiment consists on comparing TFA teacher outcomes with a control group of non-TFA teachers teaching similar students in the same environment. The strategy of the authors is to compare outcomes of students taught by TFA teachers with outcomes of students taught by non-TFA teachers (control group), in the same schools and at the same grade. The authors find that TFA teachers have a positive impact on math achievement and no impact on reading achievement. The size of the impact on math scores is about 15 percent of a standard deviation, equivalent to about one month of instruction. The general conclusions do not differ substantially for subgroups of students. The authors find no impacts on other student outcomes such as attendance, promotion, or disciplinary incidents. As a conclusion, the findings contradict claims that TFA allowing teachers to bypass the traditional route to the classroom harm students. In fact, one can see that it increases math student achievement.

Other authors have reached similar conclusion with qualitative studies. Tatel (1999)³ highlights the results of an annual independent survey of principals, parents and students used to assess the effectiveness of TFA Corps members. Of the 297 principals that responded the 1997 survey, 225 said that corps members had a greater impact on students than other beginning teachers in their schools. Additionally, like the principals, a majority of the parent respondents rated corps members higher than other teachers in areas such as reading, math, writing skills and motivation. Between the many characteristics that distinguish TFA corps members, the author argues that TFA corps members differ from the typical emergency or alternatively certified teachers who sometimes meet only minimum state requirements. He reports that in all cases corps members were highly successful college students who displayed outstanding achievement through academics, leadership roles, or extracurricular activities. Also he highlights their diverse profile that typically includes 30 percent men, 30 percent people of color, 22 percent qualified to teach math and science, and 17 percent bilingual or foreign

² Glazerman, S., Mayer, D. & Decker, P. (2006). Alternative routes to teaching: The impacts of Teach for America on student achievement and other outcomes. *Journal of Policy and Management*, 25 (1), 75-96.

³ Tatel, E. (1999). Teaching in under-resourced schools: The Teach for America example. *Theory into Practice*, Vol. 38, No.1, Redefining Teacher Quality, pp. 37-45.

language teachers, in contrast to the typical teacher force that is predominantly female (about 80%) and white (about 90%). This, the author sustains, provides bigger school diversity and could help to improve the student-teacher relation. The author concludes that while teacher shortages exists in the country, particularly in under-resource urban and rural schools, districts need new approaches for recruiting and retaining new teachers. He suggests that TFA serves as an example of one approach for meeting these needs. However, he clarifies that TFA is not a replacement for traditional teacher education, but it is an alternative route for teaching that seems effective for the bright, accomplished people it attracts to urban and rural classrooms.

Box 2: Main conditions required for the success of a program like Teach for America

From the literature we can recognize that there are certain conditions that are fundamental for the success of the program in improving student achievement and that need to be considered in the design and implementation of the program in Chile. Among others:

- 1) TFA allocates corps members in high-poverty schools, with problems of teacher shortage and/or deficient quality of their teachers. It provides children from poor communities with highly-motivated teachers inside their classroom.
- 2) TFA corps members differ from the typical emergency or alternatively certified teachers who sometimes meet only minimum state requirement: corps members are highly successful college students from elite universities who display outstanding achievement through academics, leadership roles, or extracurricular activities.
- 3) The recruitment process is extremely selective. TFA bases their selection of candidates on a model that accounts for multiple criteria that they believe are linked to success in the classroom, including: achievement, personal responsibility, critical thinking, respect for others, and commitment to the TFA mission.
- 4) The pool from which participants are drawn should be large enough to allow the program freedom to choose the most qualified candidates while still meeting recruitment targets.
- 5) Previous training and on-going support services are key components of the success of corps members.
- 6) Evidence-based studies done to assess TFA program, preferable done by researchers that do not have any stake in the results, provide solid evidence to support their positive impact. Additionally, statistical data is collected in relation to the number of applicants, proportion of people selected, corps member drop-out rate, alumni, etc.

Another independent survey was conducted with principals in schools with Teach for America corps members and measured the principals' satisfaction with TFA teachers (Kane, Parson and Associates, 2005).⁴ The survey covered 389 principals reflecting all 22 regions where Teach for America placed teachers during the 2004-2005 school year. The study related to the survey finds that principals exhibit a very high level of satisfaction with TFA corps members and find that principals recognize TFA teachers as well prepared and having a positive impact on their schools and on student achievement. They found that three out of four principals (74 percent) considered TFA teachers more effective than other beginning teachers with respect to their impact on student achievement. The study describes, among other results, how most principals rate corps members as good or excellent on eighteen indicators of effective teaching, including achievement orientation and drive to succeed, as well as motivation and dedication to teaching.

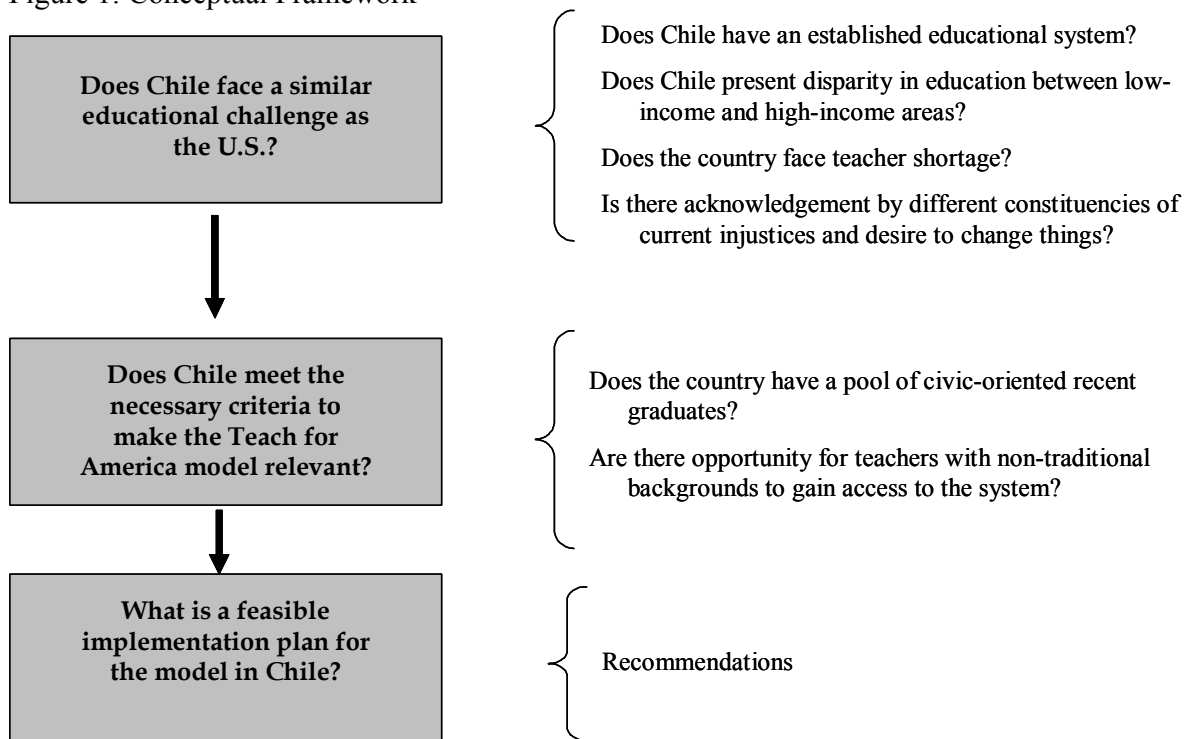
⁴ Kane, Parson & Associates (2005). A survey of principals in schools with Teach for America corps members. Retrieved August 4, 2006, from: <http://www.teachforamerica.org>

Wendy Kopp, TFA founder, says that the key to TFA’s success has been the organization’s ability to recruit a dynamic and diverse group of teachers.⁵ In her words: “They have what’s necessary to go into a situation where kids are way behind, and go above and beyond to meet rigorous standards in spite of tough circumstances”. Kopp argues that although not all TFA corps members will pursue careers in teaching they are well-prepared to assume positions of leadership and influence. She emphasizes that 60 percent of TFA alumni do work full-time in education, whether as classroom educators, principals, superintendents, education policy makers or founding charter schools. Also she stresses the positive impact that this has for the education of the most disadvantaged and as a country as a whole.

CONCEPTUAL FRAMEWORK

In order to determine if the TFA model should be replicated in Chile we need to evaluate if the country faces a similar educational challenge to the United States and if it meets the necessary criteria to make the model relevant. A graphic view of the questions to be answered is shown in Figure 1.

Figure 1: Conceptual Framework



In order to acknowledge the first question “Does Chile face a similar educational challenge as the US?” four issues are relevant. First, evaluate if the country has an established educational system. Second, evaluate if there is disparity in education between low-income and high-income areas. Third, evaluate if a teacher shortage exists and identify how large is the problem and in which regions and

⁵ Teach for America, Inc., 2006.

subjects the shortage exists. And finally, assess if there is acknowledgement by different constituencies of current injustices and if a desire to change the current condition exists.

Additionally, it is necessary to evaluate if Chile meets the necessary criteria to make the TFA model relevant. To assess this it is important to first evaluate if there is access to a pool of civic-oriented recent graduates and also evaluate if there are opportunities for teachers with non-traditional backgrounds to gain access to the system.

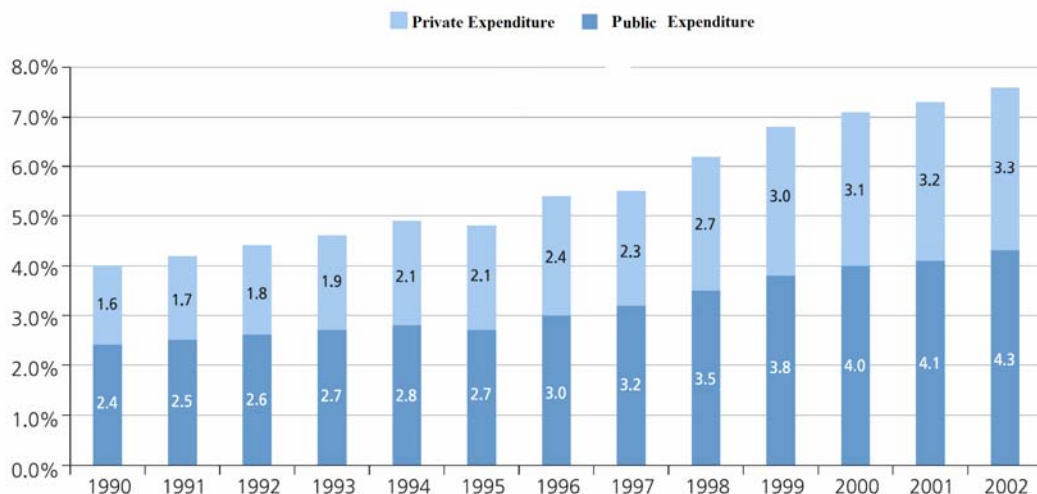
Basically, the conceptual framework would be centered on a needs assessment evaluation. The main role is to describe the “problem” that concerns major stakeholder in a manner that is as careful, objective and meaningful to all groups as possible, and help draw out the implications of the diagnosis for structuring effective interventions.

CHILEAN DIAGNOSIS

Does Chile have an established educational system?

According to a study done by Teach for America in which they assessed potential international opportunities, a country is considered to have an established educational system if it has a robust and existing infrastructure (at least 4.5% of GNP spent on education) and functioning systems (at least 85% of students enrolled in primary education).

Table 1: Total Expenditure in Education as a percentage of the GDP, by source of funding and year (1990-2002)



Source: Indicadores de la Educación en Chile. Ministry of Education, 2002

Since the 1990s the government has placed more emphasis in the educational system, increasing expenditures and giving more emphasis to aspects of equity above the efficiency criteria of the previous reforms. The investment in education has more than triplicate in real terms, as can be seen in Table 1. Public expenditure increased from a 2.4% of the GDP in 1990, to a 4.3% of the GDP in 2002. If we consider also the private expenditure in education, in a period of 10 years the expenditure in education almost double in relative terms, increasing from a 3.8% in 1990 to a 7.6% in 2002.⁶

⁶ Indicadores de la Educación en Chile. Ministry of Education, 2002

On the other hand, Chile has a functioning system as can be seen in Table 2. The enrollment rates have increased considerably during the last twenty years. In year 2000 the enrollment rates corresponded to: 99.4% of students enrolled in primary education, 92.6% enrolled in secondary education and 37.5% in higher education.

Table 2: Evolution of the enrollment rates, 1990-2003

Year	Analfabetism (older than 15 years old)	Pre-K Education	Elementary Education	Secondary Education	Higher Education (20-24 years old)	Number of students (thousands)
1990	5,3	21,0	96,7	79,0	15,6	3358
2000	4,0	32,4	98,7	89,9	31,5	4474
2003	4,0	35,1	99,4	92,6	37,5	4512

Source: Mineduc, Mideplan, and Casen (1990, 2000)

In conclusion, according to TFA standards, Chile has a established educational system and meets the first requirement necessary to justify a program similar to Teach for America in Chile.

Does Chile face disparity in education between low-income and high-income areas?

Chile faces large disparities in education with regards to family income, differences between the type of school attended by pupils according to their socioeconomic origin and the school’s economic resources by socio-economic status (SES).

On the one hand, there is an achievement gap in relation to student’s SES as can be seen in Table 3. Measured by the difference between the nationwide test scores in reading and math performance in national standardized tests⁷, children from the richest households compare to children from the poorest households-classified by a SES index- already present in 4th grade a difference that corresponds to an effect size of 1.43 standard deviation in math and 1.45 standard deviation in language.⁸ We can compare this difference to the one that exists between the nationwide test scores of African- American and whites in the U.S., which has an effect size of one full standard deviation.

Table 3: Students SES and SIMCE Test Scores

Test	Students’ SES Decile									
	1	2	3	4	5	6	7	8	9	10
<i>4° grade, 1999</i>										
Math	223.7	229.4	232.7	237.7	242.6	250.1	256.4	265.1	275.8	295.2
Language	222.9	228.7	232.5	236.8	242.1	250.2	257.9	266.3	277.5	295.2
<i>10° grade, 1998</i>										
Math	228.3	234.2	234.2	239.1	242.8	247.7	254.2	265.2	277.6	302.3
Language	224.4	231.3	232.9	238.9	245.6	251.2	259.5	269.2	280.4	299.2

Source: Gonzalez, Mizala and Romaguera (2004).

On the other hand, there is a high correlation between family income and type of school attending, school resources and level of education achieved. Income inequality is strongly related to quality of education: those with access to better quality of education enjoy more and better income opportunities

⁷ This data corresponds to the SIMCE test. SIMCE is a national test that has as primary objective is to generate reliable indicators that serve to orient actions and programs to improve the quality of education. The test is administered to all schools in the country alternatively to year 4, 8 and 10.

⁸ The test had an average of 250 and a standard deviation of 50 points. Gonzalez, Mizala and Romaguera (2004). “Vouchers, Inequalities and the Chilean Experience”

in the labor market. In Chile, the quality of public education and subsidized private education, in almost all cases, is considerably lower than that of private non-subsidized education, to which only 9% of Chileans (mostly from the 8, 9 and 10 deciles) have access.⁹ The latter can be partly explained because private non-subsidized schools have on average more than three times the resources than a public or a private subsidized school.¹⁰ For more detail on data see [Appendix 3](#).

Additionally, it exist high disparities in school performance. The results from the last PSU (university admission test) revealed that 58% of students from public schools obtained the minimum points that are demanded in the traditional universities to be able to apply for a slot in the university (though not to enter). From the private subsidized schools, 69% of the students achieve that standard. In contrast, 91% of the students of private non-subsidized schools obtained the minimum or more.¹¹

In relation to educational level achieved, the data shows that the percentage of dropouts is much higher in the lower quintiles of the population (where most of them attend public schools). Whilst the percentage of dropouts in the first two quintiles are 28% and 22% respectively, in the fourth and fifth quintiles these percentages are 9% and 3%.¹²

It is important to clarify that the evidence does not necessarily establishes that the variables that have been described have causal effects on students' test scores, however they are strongly correlated with the outcomes of the educational system. Also, it is important to clarify that I do not provide the entire burden to schools' differences, both in quality and in budget, for the achievement gap. It is well known that many of the differences in student's outcomes are explained by the family background and the conditions that children have at home. However, the evidence is strong in suggesting that the educational system is unequal and stratified, that school quality is related to student's outcomes and that there are limiting opportunities to low-income children, all of which increases the achievement gap. Additionally, there are public schools that, despite the low socioeconomic backgrounds of its students, have good academic performance, which proves that it is possible to improve school's outcomes.¹³

Does Chile face teacher shortage in specific regions/subjects?

Although, in the future no general shortage of teachers is projected, (in fact, it may happened that there is a surplus), Chile will continue to experiment an unequal supply of teachers. Considering a study done by Montoya (2005) we can establish that in an aggregate level the Chilean educational system in 2004 presents an 11% deficit in the hours required for teaching students enrolled that year. For 2010 it is expected that this deficit will diminish and there is going to be an increase in the probability of achieving market equilibrium.¹⁴ This study uses a projection model developed by

⁹ In Chile there are three types of schools: (i) public schools financed with government subsidy and run by municipalities; (ii) private subsidized schools, also financed by government subsidy, operated by the private sector and can charge tuition to parents; (iii) private not subsidized fee-paying schools, receive no government subsidy and are financed exclusively out of fees paid by parents and are run by the private sector.

¹⁰ Gonzalez, Mizala and Romaguera (2004). "Vouchers, Inequalities and the Chilean Experience"

¹¹ Ramirez, V. (2005). "Resultados de la PSU reflejan preocupante brecha entre estudiantes de establecimientos privados y públicos". La Tercera.

¹² Author's estimation from CASEN2000. Dropout is measured as ...

¹³ Unesco (2005) "No hay excusas"

¹⁴ Montoya, A. (2005). "Estudio de Oferta y Demanda de Docentes en Chile. Proyección 2005-2015".

Universidad de Chile, in which it analyses the teaching hours that are supplied and demand in Chile for the period of years between 2005 and 2015. For this, the author makes projections about population growth, number of teachers that graduate and those that retired each year, and projections of the demand for each subject in each geographical region. We are considering the results that she obtained for a maximum class size of 45 students (the one that is currently in force), although it may very well be that this regulation is changed in the future. Therefore, this represents a conservative estimation of the deficit of teachers.

So, currently we have a modest deficit that will tend to diminish during the next ten years. However, this result varies when looking at the disaggregated analysis. The projected equilibrium for the next ten years changes considerably by geographical region, grade, and subject. As shown in Table 4, in 2004 there is a general deficit in rural schools of 66% of the needed hours of teaching. This deficit, although decreasing, will still be present in the next ten years.

Table 4: Percentage of shortage or surplus of the hours of teaching by geographical zone

	2004	2010	2015
Urban	19%	31%	42%
Rural	-66%	-62	-60%

Source: Montoya, A. (2005)

When the data is analyzed by geographical region within the country, we again find different levels of shortage and/or surplus in the teacher supply of 2004. This situation continues in the next ten years. As shown in Table 5, the regions of the country that have the highest deficit of teaching hours supply in 2004 are Region IX and X. Although it will have diminished slightly, this situation will persist in the year 2010.

Table 5: Shortage or surplus of hours of teaching by region of the country. Results from comparing supply and demand of education (measured in hours of teaching)

Region		2004	2010	2015
I		6,075	14,995	23,874
II		15,328	18,519	21,964
III		8,236	30,947	51,964
IV		-48,292	-41,640	-42,236
V		33,019	50,319	61,573
VI		-8,436	183	8,723
VII		-52,504	-37,996	-33,533
VIII		-90,309	-8,601	46,579
IX		-331,797	-296,306	-286,799
X		-297,200	-235,774	-206,397
XI		-1,154	1,103	2,635
XII		6,614	5,154	3,625
RM		270,098	489,661	700,540

Source: Montoya, A. (2005)

Furthermore, given that the supply of teachers varies significantly according to region and geographical zone, it is important to analyze the situation by grade and subject. The study concludes that for the Elementary School level¹⁵ there is a deficit in 2004 in both, urban and rural zones, as well

¹⁵ Elementary Education en Chile includes grades 1st through 8th, and High School grades 9th through 12. The

as in Natural and Social Science (“Study and Understanding of the Nature” and “Study and Understanding of Society”), Math and Technology courses. None of these subjects presents a surplus in both geographical zones. In rural regions there is additionally a deficit in Arts, Languages and Language and Comprehension (Spanish) for 2004. According to the projections, in 2015 this deficit will diminish but still will exist, especially in Science. In High School (Educación Media) the subjects that present a current shortage in both, rural and urban regions, are Physics and Chemistry. However, in rural regions this shortage expands to the subjects of religion, philosophy and technology education. For more detail analysis see [Appendix 4](#).

In addition to this unequal supply of teachers, an unequal distribution of teaching quality exists. Many schools from poor sectors have problems to attract highly qualified teachers. It is well established that it costs more to educate difficult students than bright, wealthy, motivated ones. Consequently, if teachers can choose where to teach for a given salary, they will generally choose to do so in schools where teaching is less difficult and teaching conditions are better.

Public schools remain markedly unequal. Compared to their more affluent counterparts, low-income students on average have teachers who graduated from less competitive universities or institutes, scored lower on standardized tests, are less likely to be certified in the field they teach, and are more likely to be absent. For example, an important number of public schools cannot hire teachers with a university degree. Therefore, they hire teachers with technical degrees. Mizala and Romaguera (2002) conclude that private schools have a significantly larger percentage of teachers with university degree (86.6%), compared to the public schools (63.9%).¹⁶

Consequently, although children with higher difficulties to learn require the most qualified teachers to cover these additional needs, this is not happening in Chile. Schools with higher percentage of low-income students and located in rural or high risk areas, attract teachers that, in almost all cases, are not part of the highly qualified cohort of teachers. Such inequalities are evident in the pattern of newly hired teachers, and they are exacerbated by the patterns of attritions and movement among teachers who remain in the public schools.

Is there acknowledgement of different constituencies of current injustices and desire to change things?

Education is one of Chilean government’s most pressing problems. During the last years the discussion has been centered on how to improve the Chilean educational system, where academia and different stakeholders of the educational system have pushed for structural changes for improving quality of the education and reduce inequalities of the system.

Last year’s students’ protests influenced the public opinion in Chile and put again education in first place of the political agenda. Around 600.000 students went to the streets to protest against the issues of quality and equity of the educational system. They made a call to the society as a whole to mobilize and they obtained large amounts of public support. The students’ movement also marked an

latter in grades 11 and 12, is divided between two options: Scientific-Humanistic and Technical Professional.

¹⁶ Mizala, A. and Romaguera, P. (2002). “Regulación, incentivos y remuneraciones de los profesores en Chile”. Documentos de Trabajo CEA.

inflexion point in Michelle Bachelet’s government. Her administration started with a 65% of approval, while a few month later, right after the student’s manifestations, the approval rate fell to 44%.¹⁷

However, the debate about education is nothing new in Chile. During the last presidential elections all four candidates agreed that Chile’s education system needed to be improved, and that Chile would never be able to enter the developed world without first revamping its education. If Chile really wants to make progress towards improving its society, it must compare itself not only to countries that are worse off, but also to more successful countries. Therefore, politicians must seek the ways to reform education in order to improve its overall quality.

Does Chile have a pool of civic-oriented recent graduates?

Existent data from the government of Chile provides statistical information of the number of students graduating from undergraduate, disaggregated by region and institution.¹⁸ With this numbers it is possible to make an estimation of the number of students that would optimally need to apply to TFA-Chile to be able to have the same selective process as TFA scaled to Chile’s population. Although admissions for TFA won’t fully depend on the applicant’s university, I will consider the sample of the best universities in order to obtain rough estimations.

As a matter of calculating the recruitments and admissions for the program I consider the number of graduates from the best 10 universities in Chile.¹⁹ Then to this pool of students I applied similar rates of recruitment and admission as TFA: 5% of those students apply to the program and from those 7% have the required skills. As can be seen in Table 6, 59 students would be those willing and selected for TFA in Chile.

Table 6: Number of Undergraduates that graduate from the Best 10 Universities in Chile and estimation of the recruitment and admissions for TFA-Chile using TFA’s recruitment rates

UNIVERSITY	2006
Pontificia Universidad Católica de Chile	3.524
Pontificia Universidad Católica de Valparaíso	1.299
Universidad Austral de Chile	183
Universidad de Chile	3.627
Universidad de Concepción	2.328
Universidad de La Frontera	955
Universidad de Santiago de Chile	2.714
Universidad Técnica Federico Santa María	1.041
Universidad Adolfo Ibáñez	972
Universidad Diego Portales	288
TOTAL	12.100
TOTAL	
Recruitment (5% total)	847
Admissions (7% applicants)	59

Source: Chilean Ministry of Education and Author’s estimations

¹⁷ Evaluación Gestión del Gobierno mes de Junio, Adimark, 7 de julio de 2006.

¹⁸ Statistics Higher Education, Ministry of Education, Chile.

¹⁹ Revista El Sabado de el Mercurio, Publication 20/11/2004 and http://mt.educarchile.cl/mt/jjbrunner/archives/2005/11/ranking_mundial.html.

It is difficult to determine if this number of applicants is a pragmatic expectation. A proxy to this are the current number of young professionals that work in other “corps” type programs already existing in Chile, such as “Servicio Pais” (SP) and “Jovenes al Servicio de Chile” (JSCH). As can be seen in Table 6, the number of young professionals recruited each year has been increasing through out the years, the same for the number of those who stay longer. Both programs require one year of commitment and are designed for young professionals, however they differ in their mission and objectives. Servicio Pais, a government supported program, seeks to generate socio-cultural transformations in rural communities and contribute with poverty reduction, recruiting a heterogeneous group of people from different careers and SES background. Informal data permit us estimate that more that approximately 5% of the people that applied are selected, however this number is biased given that some professions, such as social workers, have an excess of applicants and some others have none. On the other hand JSCH, with a right-wing party support, seeks to support and foster public servants by locating them in municipalities across the country, with the objective that some day they can head the social and political changes in Chile. JSCH is more selective in their process (they receive applications but also seek potential corps members) and attracts also professionals from different background; however they differ that their corps members are more homogenous and typically come from high SES families and more prestigious universities. Informal conversations with program’s staff members revealed that approximately 40% of the professionals that applied are selected into the corresponding program.

As can be seen in Table 7, both comparison programs recruit a higher number that the one projected for TFA-Chile, 193 for SP and 66 for JSCH.²⁰ However, the selection processes are estimated to be less selective that what TFA is in the US, especially the case of Servicio Pais, and, although they have different objectives, recruitment processes, and administration, they can be seen as possible competitors to TFA-Chile. Both programs recruit young professionals that have a sense of mission, have leadership capacities and that are willing to contribute through their work to help solve the problems of Chile.

Table 7: Number of young professionals recruited annually by program

	Servicio Pais		Total	Jovenes al Servicio de Chile (*)		
	SP corp members < 1 year (new)	SP corp members >1 year		JSCH < 2 years (new)	JSCH > 2 years	Total
1995	108		108	--	--	--
1996	105	25	130	--	--	--
1997	106	39	145	--	--	--
1998	149	36	185	--	--	--
1999	147	53	200	3	0	3
2000	190	38	228	20	0	20
2001	180	81	261	30	3	33
2002	227	65	292	48	5	53
2003	216	55	271	67	10	77
2004	193	72	265	74	12	86
2005			0	58	21	79
2006			0	66	35	101

(*) JSCH program started in 1999.

Source: Official data from Servicio Pais (Memoria Servicio Pais) and JSCH

²⁰ Unfortunately the data for SP for 2005-06 was not available.

Are there opportunities for teachers with non-traditional backgrounds to gain access to the system? What does the Chilean Legislation says about authorizing professionals without a teaching degree to teach in Public Schools?

The access to the system varies according to the type of school. Private schools (not subsidized) do not have any restriction in terms of whom they hire as teachers. They are free to hire who ever they determine meets better their needs and think is more competent to do the job. On the other hand, public and private subsidized schools have specific regulations which schools have to comply with.

According to the Complementary Decree 352 of the Supreme Decree 7723 of 1981, the Department of Education can authorize the educational exercise to people without a teacher degree, for the Secondary, Middle, and Elementary levels, in exceptional situations in which there is not sufficient professionals to cover the needs or the existing are not available. The authorization must be requested in the Department of Education's Provincial Office where the teacher shortage is verified through the revision of "teacher availability" data bases (*Rol de Postulantes*²¹) and through the verification that a public announcement of the available position was done in a nationwide newspaper and that nobody applied for the position.

The authorization is given for one year. However, this authorization can be renew by sending to the Department of Education's Regional Office a report of performance at the end of the academic year. This report should be done by the institution that administers the schools where the professionals with special authorizations are teaching and should include a description of professional responsibility, class preparation and positive teaching characteristics. An exception to the latter is for those people that have taught for more than one year and that in parallel are studying to obtain the teacher degree. In this case, only a certificate from the corresponding university where she/he is studying is required for the reauthorization.

Neither teacher degree nor authorization is required to exercise the teaching on specific matters such as: activities of training, craft and other similar. No authorization is required either for teaching vocational courses in the secondary humanistic-scientific education or specific courses of the technical-professional secondary education, when a professional is teaching that course.

In informal interviews with school administrators it was confirmed that in fact the process works as it is established by the decree. However, it was mentioned that the pressure done by the teachers union, both to the municipalities and to the provincial office was very strong and that was the most important barrier of entrance to professional of other fields. Also, it becomes an important issue when there is a personnel or budget reduction, as certified teachers will demand that uncertified teacher have to be the ones that suffer first the consequences of such cuts. This situation is especially strong in public schools and large communities, where more political actors are involved. It was also mentioned for the case of public-subsidized schools that a good relation with the provincial authority and proving that the authorized professionals show good results, contributes to the authorization and reauthorization process.

²¹ For more information, see link:

http://www.mineduc.cl/index.php?id_portal=1&id_seccion=1737&id_contenido=3845

RECOMMENDATIONS

Recommendation 1: The Program of Public Policy UC should consider implementing (or fostering the implementation) of a program similar to Teach for America in Chile as a method of alleviating education inequalities

As result of the analysis made in this memo it is concluded that Chile faces similar educational challenges as the U.S. First, it has an established educational system measured by its high enrollment rates in primary and secondary education (99.4% and 92.6% correspondingly), and by its investment higher than 7% of the GDP in education. Secondly, the evidence shows that Chile faces large disparity in education related to family income, type of school attended and school's economic resources. Previous studies revealed that the achievement gap in 4th graders between low- and high-income students corresponds to an effect size of 1.44 of a standard deviation on average. Third, a teacher shortage exists in certain regions, grades and subjects, and differs dramatically from one school to another; additionally, and even a more urgent problem is the unequal distribution of high-quality teachers. The literature confirmed that compare to their more affluent counterparts, low-income students on average have teachers who graduated from less competitive universities or institutes, scored lower on standardized tests and are less likely to be certified in the field they teach. Finally, there is acknowledgement of the different constituencies of the current inequity in the education system and education is one of Chilean government's most pressing problems.

Moreover, Chile meets the necessary criteria to make the model of Teach for America relevant in Chile. From the data collected from the literature, government statistics and exploratory interviews it is found that there is a pool of civic-oriented recent graduates that could be recruited by the program. Data from current programs that recruit young professionals demonstrate that there is already a sense of mission in the Chilean youth and that there is the will to contribute through their work to help solve the problems in Chile. On the other hand, data of the number of graduates by year permit us prove in this memo that there is a significant number of young people graduating from high-quality and competitive universities.

In relation to the effectiveness of Teach for America in the US, a complete literature review developed in this memo revealed that the most persuasive evidence obtained through a randomized controlled experiment suggests that, on average, students of entering TFA teachers perform better or at least as well in math as those entering teachers, including those from traditional preparation programs, and as well in English language arts. Research done by Glazerman et al. (2006), Kane, Parson and Ass. (2005) and Tatel (1999), shows that TFA contribute to reduce the achievement gap and that it has a significant impact on student's motivation and capacities. Research shows the importance of effective teachers in student performance, especially in challenging schools. Moreover, TFA corps member's effectiveness is increasing every year given that the program is gaining in expertise on corps training and on-going support. Additionally, TFA has a long-term impact: more than 60% of TFA alumni are still working full-time in education, whether as teachers, principals, school administrators or policy makers.²² Others have entered sectors outside of education influencing the policy-making decision in governmental, NGO and private firms shaped by their own experience inside public schools. Among Teach for America's alumni there are successful lawyers, senate leaders, engineers, consultants, bankers, educationalists and, naturally, many teachers still making a difference in their classrooms. In

²² Teach for America, 2005 Annual Report.

fact, important educational programs and successful innovative solutions to American education problems have been founded by TFA alumni.

Thus, it is recommended to the Program of Public Policy UC to implement (or foster the implementation) of a program like TFA in Chile targeted at outstanding graduates, using the support of different stakeholders, such as businesses and education leaders, to bring additional excellent teachers into challenging schools for two years. The program will contribute to educating poor students, will collaborate in reducing the achievement-gap and will bring a new pool of teachers to the schools and help diminish teacher shortage. To contribute to eliminate educational inequity TFA-Chile will need to provide in the short-term the energy and leadership of the corps members inside the classrooms where they are most needed. In the long-term, and the most important impact of the program, TFA-Chile goal should be, and clearly emphasize, to build a movement, a theory of change, to eliminate educational inequity by recruiting Chile's most promising future leader to the program and its long term goals.

The implementation of TFA-Chile will bring the best and brightest graduates into Chile's classrooms. They will be relentless believers in the potential of every child and they will make every effort to help reduce the achievement gap between low and high income schools. In the short-term, members will go above and beyond traditional expectations to ensure that more students growing up today have the educational opportunities they deserve. In the long-term, their period of teaching commitment in the most underserved schools will shape their career path and they will stay in the educational field. Although, some alumni will enter sectors outside of education, their unique experience and insight to education, ingrained in their minds and hearts, will still deeply influence the decisions they take in their future leadership positions. It is important to emphasize that the success of any education reform will rely heavily on the capacity to shape leaders not only within the education sector, but also at every level of the society, be it business or media. Everyone needs to understand the potential of children in low income communities and the changes that must happen in education to ensure they fulfill that potential, and this is exactly what TFA-Chile promise to create.

Recommendation 2: Strong local leadership capacity is needed to implement Teach for America in Chile

It goes without saying that good leadership is crucial to any successful organization or program, especially in those that demand innovation. The literature in relation to Teach for America's history and TFA's effectiveness is clear in showing that one of the main assets to achieve the success of the program is the leadership capacities of the founder and program staff members. As a 21 year-old, Wendy Kopp (TFA's founder) raised US\$2.5 million of start-up funding, hired a skeleton staff, and launched a grass-roots recruitment campaign. During the first years of the program, Kopp and TFA's staff member had to overcome many problems, including funding, logistic and internal management problems. However, the leadership capacities of Kopp and TFA's staff members permit them now to be positioned as one of the most influencing nonprofit organization of the U.S. and to be among the top 50 recruiting firms of top colleges in the country.

On the other hand, the bottom line is that TFA, as other education entrepreneurs in the U.S. that have succeed in the generally hostile environment, do so by compromising and accommodating in order to win friends, make allies, and evade enemies in the locales that comprise their micromarkets.

They've acclimated to a tough reality: the change-averse public-school establishment that are at the same time their principal client, customer and sometime regulator.²³

Therefore, leaders that would implement the program in Chile need tenacity and hard work capacity to coordinate various stakeholders and break the status quo. TFA-Chile is a very challenging project. It will need to gain the support of the business community, teaching profession, the government and political parties, and other policymakers. It will need to build a bridge between the different educational systems, the business community, the public sector and the non-profits. Also, TFA-Chile's leaders will need to develop an implementation plan that permits attract the most talented graduate students and gain the trust and confidence not only from the applicants, but also from educational authorities, majors, and school principals.

The leaders will also need to have empathy and be extremely humble with issues related to teachers. The program should contribute with current and future teachers' work, and not fight against them. Although, there is research and evaluations done in Chile that shows that in many cases teacher quality is deficient²⁴, especially in those hard-to-teach schools, teachers have been doing their work for years and those that are in their first years of teaching have made great efforts to surpass all the requirements to receive their certification. TFA-Chile's leaders should gain the trust of certificate teachers in their mission of reducing the achievement-gap and not to highlight those negative facts about current teacher quality. Additionally, TFA-Chile's leaders will need to manage the pressures of teacher unions and educational administration offices at different levels (municipal, provincial, and the central administration) that by far will be the main entry barrier of the program.

Additionally, TFA-Chile's leaders will need to coordinate and foster the relationship and support of TFA (U.S). The experience and capacity gain by TFA in relation to teachers training, on-going support services, corps members selection, working in high-poverty school, brand management, etc. is an indispensable asset for TFA-Chile success. And at the same time many of the lessons and insights learned from the initial years of Teach for America will inform the development of TFA-Chile.

Thus it is recommended that a group with strong leadership capacities build TFA-Chile. Only a group of dedicated, innovative, passionate leaders with vision and ideas affecting change and solving problems will ensure that the new program is a success. They will need to have not only commitment and willingness, but also have management skills and knowledge of the different realities of the schools across the country.

These leaders will inspire and engage the other members of TFA-Chile team and the different actors involved in the program. They will get things done, focusing on the vision and different goals of the organization. Additionally, they will be able to transmit the mission of the program to the different actors involved and gain the trust of them by transmitting ownership of that mission. The leaders' management skills and network capacity will be able to attract the business community to the project and raise the necessary funds to start and maintain TFA-Chile.

²³ Education Next (Spring 2007)

²⁴ In a TIMSS study, a 45% of the math teachers experienced a lack of confidence in his/her competences, compared to 14% in other countries. The same results were found in Science teachers that also felt a lack of grasp of the contents. ILO (2005). "Personal Docente para el Futuro: Remediar la escasez de personal docente para alcanzar el objetivo de educación para todos"

Recommendation 3: The Program of Public Policy UC should look for “windows of opportunity” to start the program

From the analysis made in this policy brief in relation to what the Chilean Legislation says about authorizing professionals without a teacher degree to teach in public school, it is revealed that the current law is very restrictive for professionals that do not have a teacher degree to be able to teach in public and public-subsidized schools. From the analysis of the law and exploratory interviews with school principals it is possible to conclude that the implementation of a program like TFA in Chile will not be easy task considering the different political actors that are involved in the process of authorization. On the one hand, in the case of the public schools, the major (and the school’s principals) need to be align with the program’s mission. On the other hand, the Education’s Provincial Office has to rectify the need of professional without a teacher degree given that teacher shortage exists. Moreover, the teacher union have a strong bargaining power and most of them, strong opposition to professionals from other fields being inside the classrooms.

Therefore, TFA-Chile should carefully assess the window of opportunity of the program to be able to enter schools and the educational sector. As demonstrated in this policy memo, there is already acknowledgement by different constituencies of current injustices and a desire to change things, hence the right minute and the best opportunity should be looked to be able to start the program in the Chilean political and social context.

I recommend starting the program in those municipalities, grades, subjects and schools where the greatest need exists, especially due to teacher shortage. Look for places with more innovative majors and where the teachers union is not so strong. This way the program should have less barriers of entrance and be able to allocate the first corps members inside school. These municipalities and schools will desire this new pool of teachers, as they have excellent knowledge in the subjects where there is more scarcity of teachers. At the same time, the Provincial Offices of Education will tend to approve these cases due to that very same shortage. TFA-Chile corps members will be able to collaborate with schools and teachers in an environment where they are actually needed. In the long term, the barriers of entrance will diminish by demonstrating the positive results of the program inside the classroom and schools, and by the quality of its corps members.

So, although the mission of a program like TFA in Chile is centered in reducing the achievement gap, as well as about the long term effects on the participants’ career path, in the beginning it will also be necessary to use and highlight the argument of teacher shortage in certain regions, grades, subjects and schools. This should be a complement of the mission but not a substitute. Teacher shortage by itself is not a persuasive factor to create a TFA like program in Chile, given that there are other, potentially better alternatives to solve this problem.

Finally, I also recommend TFA-Chile to analyze other entrance points to the educational system. One option would be to focus more specifically in the shortage of English teachers, issue that has been acknowledged and addressed by the government in the last years through “English Opens Doors Program” (Ingles Abre Puertas). Currently this program includes the incorporation of international students, without necessarily a teacher degree, into public and private subsidizes Chilean schools for the period of 6 months. Another possible alternative, although with another focus, is to evaluate the option of a strategic partnership with a prestigious university. This relationship will allow the program to access the wealth of resources that such a university can offer. On the other hand, the university can act as an advocate for the program in the community letting country leaders know that the program’s priorities are not exclusively from an independent, young and unknown organization.

Additionally, high skilled students would build a relationship with TFA-Chile before graduation, beginning recruitment efforts early.

Recommendation 4: The Program of Public Policy should consider a deeper analysis of the possible scope of the program in order to achieve the maximum number of high-quality recruited recent graduates

From the literature review in relation to Teach for America's history and program characteristics it is found that the high-quality of their corps members is a key component of the success of the program. As indicated in this policy brief, TFA corps members differ from the typical emergency or alternative certified teachers who sometimes meet only minimum requirements. TFA corps members are highly successful college students from elite universities who display outstanding achievement through academics, leadership or extracurricular activities.

Therefore, it is fundamental that the quality of TFA-Chile corps members should never be compromised. This is going to be the main asset of the program, especially in the first years, as it will contribute to validate TFA-Chile in the country. The program should focus on attracting graduates that are talented leaders in their communities. They have to be self-aware, have demonstrated to be able to overcome adversities and most important of all, firm believers in TFA-Chile's mission of reducing education inequity. Every effort should be done to enlist the best graduate students in the program to achieve successful results and enlarge the program's impact.

However, also the scope of the program is important. TFA-Chile should not be seen as just another educational project that is trying to collaborate with the educational programs. The program should have a national impact and be distinguished from other projects. To achieve this, the scale and the geographical distribution of its corps members are important issues.

From the analysis of the data of graduation rates and the number of corps members of other similar programs, it is possible to determine that the task of recruiting more than 1,000 students is going to be the second major challenge of the program. The main challenge is not the scale as such, but achieving it accompanied by high quality of participants. Additionally, other social young-leaders programs such as Servicio Pais and Jovenes al Servicio de Chile may represent competition and the number of applicants may decrease with the appearance of yet other option.

Furthermore, it is difficult to determine how the recent graduates will respond to TFA-Chile. Therefore I recommend developing a study of demand for TFA-Chile. For this purpose, I recommend surveying a heterogeneous sample of students from prestigious universities in different cities and with this data determine an approximate demand of the program in the first year and thus, the optimum number of TFA-Chile's first year corps members. Also this survey would be a great instance to assess what students most value of the program, capture opinions of some of the program's requirements (such as summer training and the two-year commitment), and assess differences by careers.

Additionally, I recommend that given the importance of the selectivity of the process, that an external firm is hired to develop the marketing campaign and develop the best strategies to attract the most talented recent graduates. Finally, following TFA model, I recommend that to make a strategic alliance with at least one student council in each university campus and to have one person as campus representative, providing them a small monetary incentive. The purpose of these alliances would be that they help to develop and execute strategies to achieve the specific university campus recruitment

goals, coordinate and launch marketing campaigns, talk with other student councils, coordinate special events and help with logistic.

The implementation of this recommendations will permit TFA-Chile be pragmatic in their expectations and reach the recruitment goals without compromising quality. The diverse efforts will permit also to reach diverse audiences that would permit attract people from different socioeconomic backgrounds, careers and gender.

CONCLUSION

The low level of quality and equity of education are, without a doubt, the most important problem that faces our country in the medium and long term. The achievement gap is the most compelling issue: low-income students are several grades behind in skill level compare to their high-income peers and this gap does not seem to decrease although all the increase in educational investment and various reforms. For our country to be competitive and maintain the growth of the economy in the long term, it is fundamental that workers be qualified and full participants in the social, political and economic institutions of our society.

This policy brief explains why a program similar to TFA should be implemented in Chile and provide recommendations to the Program of Public Policy UC on a possible implementation plan. The memo has the final goal of helping them to disseminate the importance of a program like TFA in Chile and to encourage other policy actors to build partnerships in order to implement the program.

Academically able young people going into teaching is a good thing and I think that there is no question that their idealism and energy are a contribution to the education field that enhances the public schools were they are assigned. The program will address the inequality of the Chilean education system by ensuring that more of today's students grow up with the opportunities they deserve and to attain an excellent education. The benefits of a program with these characteristics would provide an invaluable contribution to the country. First, it will provide children from poor communities with highly-motivated teachers from the best universities of the country inside their classroom. Second, it will bring professional of other fields to the teaching career, with the chance that some of them decide to continue doing classes or stay in the educational field. And third, will foster youth involvement in the social problems of Chile. One of the main objectives of TFA is not only that this new teachers stay in the teacher career, but that they when they become leaders in their fields, whether education or other sector, TFA corps members will assume positions of leadership and influence to impact the social more urgent problems of the country. This is an enormous benefit for the whole country. Future generations would benefit from leaders and policy makers that influence policies that are based in their personal experiences in public schools and in the educational sector, promoting equity and help to reduce the achievement gap for tomorrow's students from different angles.

One of the main factors to educational success is that teachers and the society as a whole believe that every kid has the potential for the tremendous academic gain regardless of where they come from. I am hopeful that a program similar to TFA would bring highly qualified graduates, relentless believers in the potential of every child that would make a great impact both, inside the classroom and in the society as a whole.

Appendices

Appendix 1: History of Teach for America and how the program works

In 1998 Wendy Kopp in her Princeton University undergraduate thesis proposed the creation of Teach for America. Although at the beginning the idea was not well received, she decided to create the program given her conviction that many people in her generation wanted to assume a significant responsibility that would make a difference in the country. As a 21 year-old, Kopp raised \$2.5 million of start-up funding, hired a skeleton staff, and launched a grass-roots recruitment campaign. During Teach for America's first year in 1990, 500 men and women began teaching in low-income communities across the country.

Teach for America is a public/private partnership that recruits teachers for high-poverty schools in a number of areas of the country. They recruit teachers nationally, targeting recent graduates of elite colleges and universities; the recruitment process is extremely selective. To apply, candidates complete an online application, including a letter of intent, a resume and an essay. The most promising applicants are invited to participate in a long-day interview, which includes a sample teaching lessons, a group discussion, a written exercise, and a personal interview. Using information collected through the application and interview, TFA bases their selection of candidates on a model that accounts for multiple criteria that they believe are linked to success in the classroom, including: achievement, personal responsibility, critical thinking, organizational ability, respect for others, and commitment to the TFA mission.

One corps members are selected they must attend a summer training institute, run by Teach for America, prior to being placed in a classroom. The curriculum is designed by TFA and includes six components²⁵, in addition to a summer teaching experience in New York City. Once corps members begin teaching, they continue to take courses with a local partner university. TFA requires a two-year commitment; at the end of this period, corps members earn certification, and many also earn a master's degree.²⁶

Teach for America secures placement for corps members in school districts, provides pre-service and in-service training, and provides a support network for members during and after service. On 2003, 90 percent of TFA corps members were placed in a school with at least one other corps member. Teachers are paid by the school districts in which they teach and generally receive the same salaries and health benefits as others beginning teachers. Most districts pay a fee to TFA, US\$1500 per corps member, to offset screening and recruitment costs. TFA gives corps members various additional financial benefits not related directly to their district compensation. Costs for recruitment, placement, and training are paid by regional corporations, foundations, local governments, and national corporations and foundations.

Through out the years the program has not been free of serious difficulties and challenges. However, the organization has built a solid program for recruiting, selecting, training and supporting its corps members; and has a sustainable financial plan over time.

²⁵ The components are: Teaching as Leadership; Instructional Planning and Delivery; Classroom Management and Culture; Literacy Development; Diversity, Community, and Achievement; and Learning Theory.

²⁶ A Quality Teacher in Every Classroom: Improving Teacher Quality and Enhancing the Profession. The White House.

The operational budget is of U\$40MM. For 2010 Teach for America has set the goal of 8,000 corps member and U\$108 million raised annually by 2010. For this year they set the goal of a reserve fund equal to half of operating budget and project that half of their alumni will donate time or money. Equally important, they are increasing the evaluations of corps member's effectiveness, measuring the gains that teachers make inside the classroom. Teach for America receives some Federal assistance through the AmeriCorps program.²⁷ In addition, all teachers in this program are eligible for an AmeriCorps education award worth up to \$4,725, available over a seven-year period, to pay for higher education or to pay student loans.

Teach for America national directory is formed by 27 people that come from an array of background and sectors. Among others, they come from the private sector (e.g. founder & Chairman Emeritus of Gap Inc. and the Chairman & CEO of Sony Corporation), consulting sector (e.g. founder, CEO & President of First Manhattan Consulting Group), corporations (e.g. chairman, President & CEO of Wachovia Corporation), foundations (CEO of The Sherry Lansing Foundation), and the academia (e.g. Director of the Center for Public Leadership of the John F. Kennedy School of Government Harvard University).

²⁷ AmeriCorps is a network of local, state, and national service programs that connects more than 70,000 Americans each year in intensive service to meet our country's critical needs in education, public safety, health, and the environment.

Appendix 2: Summary of Review of the Literature

Year	Author	Title	Purpose/RQs	Method	Findings	Flaws of the study
2006	Glazerman, Mayer and Decker	The effects of Teach for America on students: Findings from a national evaluation	Study the impact of Teach for America on student achievement and other outcomes	Randomized experiment	The authors find that TFA teachers have a positive impact on math achievement and no impact on reading achievement. The size of the impact on math scores is about 15 percent of a standard deviation, equivalent to about one month of instruction	Many control teachers had little formal training, therefore it is difficult to generalize the results cannot be generalized.
2005	Kane, Parson and Associates	Survey of principals in schools with Teach for America corps members.	Analysis of an independent survey that covered 389 principals reflecting all 22 regions where Teach for America placed teachers during the 2004-2005 school year	Descriptive statistics of post-intervention measures	The study find that principals exhibit a very high level of satisfaction with TFA corps members. The study describes, among other results, how most principals rate corps members as good or excellent on eighteen indicators of effective teaching, including achievement orientation and drive to succeed, and motivation and dedication to teaching.	There is an initial selection process on the principals and their positive opinion about TFA given that their district/school decided to have TFA inside their schools.
2005	Darling-Hammond et al.	Does teacher preparation matter? Evidence about teacher certification, Teach for America, and teacher effectiveness	Examine the question of how teacher preparation and certification influence teacher effectiveness for both TFA and other teachers, using a data set from Houston, Texas.	Regression analysis looking at 4th and 5th grade student achievement gains on 6 different reading and maths tests over a 6 year period.	They find after controlling for teacher experience, degree, and student characteristics that certified teachers consistently produce significantly stronger student achievement gains than do uncertified teachers. These findings hold for TFA recruits as well as others. In the case when TFA recruits become certified after 2 or 3 years, the study revealed that they did about as well as other certified teachers in supporting student achievement gains.	Common problems with regression analysis: missing variables that may affect the value of the coefficient, correlated error term, etc.
2002	Laczko-Kerr and Berliner	The effectiveness of "Teach for America" and other under-certified teachers on student academic achievement: A case of harmful policy	Measure and compare the performance of students in the classes of the uncertified (including TFA) and certified teachers in selected districts of the state of Arizona	Matching statistical	Their results show that in comparison to the case when children are assigned to a teacher with regular state certification, low achieving children when assigned to a classroom of under-certified teacher, make gains that are approximately 2 months less per school year. The authors also find that there is no difference between the performance of new teachers from TFA and that of all other under-certified teachers.	The study fails to account adequately for both prior differences in student's achievement and biases in the assignment of student to teachers.

Year	Author	Title	Purpose/RQs	Method	Findings	Flaws of the study
2001	Raymond, Fletcher & Luque	Teach for America: An evaluation of teacher differences and student outcomes in Houston, Texas	Examine teacher performance using student and teacher data for the Houston Independent School District for the period 1996-2000.	Regression analysis with controls of teacher experience, along with individual student, classroom, and school demographics	The research group concludes that on average, the impact of having a TFA teacher is always positive. The study find significant positive coefficients when the students of TFA recruits are compare to those of beginning teacher with 0-1 years of experience on the TAAS mathematics test in 4 th and 5 th grade, and when the student of TFA teachers are compare to those of other teachers on the TAAS mathematics test in 6 th through 8 th grades.	Results are based on simple OLS analysis with all the problems of this technique. Some possible bias of observed and unobserved variables may exist and produce biased coefficients. Other flaw is that performance of the TFA teachers was only uncertified and that the problem of attrition was not addressed.
2000	Darling-Hammond	Teacher quality and student achievement: A review of state policy evidence	Examine the way in which teacher qualifications and other school inputs are related to student achievement across states, using a data from a 50-state survey of policies, state case study analyses, the 1993-94 Schools and Staffing Surveys (SASS), and the National Assessment of Educational Progress (NAEP)	Quantitative (regression analysis for controlling poverty and language status) and qualitative analysis of the survey	She finds that teacher certification is by far the strongest correlate of student achievement in reading and mathematics, both before and after controlling for student poverty and language status.	Aggregates all alternative programs as a similar group. The data is clear in showing that TFA corps members have a different profile and motivation that people from other alternative certification program.
1999	Tatel	Teaching in under-resourced schools: The Teach for America example	Analysis of the annual independent survey of principals, parents and students used to assess the effectiveness of TFA Corps members	Descriptive statistics of post-intervention measures	Of the 297 principals that responded the 1997 survey, 225 said that corps members had a greater impact on students than other beginning teachers in their schools. Additionally, like the principals, a majority of the parent respondents rated corps member higher than other teachers in areas such as reading, math, writing skills and motivation.	No information is provided in indicators where TFA corp members were not well rated.

Appendix 3: Enrollment, Family Income Decile and Type of School, 2000

(Percent)

Income decile	Public	Private Subsidized	Private Fee-paying
1	23.7	9.9	1.2
2	22.8	11.4	1.4
3	18.6	13.0	1.6
4	14.2	10.9	1.7
5	12.1	13.1	3.9
6	9.0	12.0	3.8
7	6.7	9.8	4.6
8	4.9	9.7	12.4
9	2.9	7.0	23.8
10	1.4	3.1	45.6
Total	100.0	100.0	100.0

Source: Mizala, A., Romaguera, P. and Ostoic, C. (2005). 'Equity and Achievement in the Chilean Educational School Choice System'. Center for Applied Economics. Universidad de Chile.

Appendix 4: Shortage or Surplus of Teaching Hours. Projections for 2005- 2015 by subject, grade and geographical location.

Subject	Grade(*)	Zone	2004	2010	Δ 10-04	2015	Δ 15-10	Δ % 04-10	Δ % 10-15	Δ % 04-15
Languages	Básico	Urban	22.110	56.358	34.248	83.260	26.902	155%	48%	277%
		Rural	-30.639	-22.373	8.266	-16.755	5.618	-27%	-25%	-45%
	Media Total	Urban	8.575	17.817	9.242	43.186	25.369	108%	142%	404%
		Rural	-693	88	781	2287	2199	-113%	2492%	-430%
	Media HC	Urban	11.313	16.039	4.726	36.833	20.794	42%	130%	226%
		Rural	-222	-148	74	951	1099	-33%	-744%	-528%
Media TP	Urban	-2.738	1.777	4.515	6.353	4.576	-165%	257%	-332%	
	Rural	-471	236	707	1336	1100	-150%	466%	-384%	
Technology Courses	Básico	Urban	-15.839	-11.581	4.258	-12.605	-1.024	-27%	9%	-20%
		Rural	-33.856	-27.019	6.837	-24.266	2.753	-20%	-10%	-28%
	Media HC	Urban	1.780	-935	-2.715	-1.953	-1.018	-153%	109%	-210%
		Rural	-3	-130	-127	-168	-38	4250%	29%	5491%
Language and Communication	Básico	Urban	17.465	36.358	18.893	43.978	7.620	108%	21%	152%
		Rural	-61.769	-49.420	12.349	-44.757	4.663	-20%	-9%	-28%
	Media Total	Urban	51.759	44.855	-6.904	51.203	6.348	-13%	14%	-1%
		Rural	1.195	2.838	1.643	5.603	2.765	138%	97%	369%
	Media HC	Urban	44.225	37.431	-6.794	44.328	6.897	-15%	18%	0%
		Rural	977	1043	66	1988	945	7%	91%	104%
	Media TP	Urban	7.534	7.424	-110	6.876	-548	-1%	-7%	-9%
		Rural	218	1796	1578	3615	1819	724%	101%	1558%
Mathematics	Básico	Urban	-26.543	-8.876	17.667	-1.249	7.627	-67%	-86%	-95%
		Rural	-77.196	-64.829	12.367	-59.945	4.884	-16%	-8%	-22%
	Media Total	Urban	42.042	28.772	-13.270	31.356	2.584	-32%	9%	-25%
		Rural	1.216	529	-687	1.325	796	-57%	151%	9%
	Media HC	Urban	38.406	25.205	-13.201	28.126	2.921	-34%	12%	-27%
		Rural	648	445	-203	1312	867	-31%	195%	103%
	Media TP	Urban	3.636	3.568	-68	3.230	-338	-2%	-9%	-11%
		Rural	568	84	-484	13	-71	-85%	-85%	-98%
Elementary Education 1st to 4th grade	Básico	Urban	191.288	382.801	191.513	523.566	140.765	100%	37%	174%
		Rural	-640.298	-561.066	79.232	-549.638	11.428	-12%	-2%	-14%
History	Media Total	Urban	22.941	31.967	9.026	56.613	24.646	39%	77%	147%
		Rural	-202	417	619	2577	2160	-307%	518%	-1379%
	Media HC	Urban	25.339	29.733	4.394	51.035	21.302	17%	72%	101%
		Rural	375	1355	980	3464	2109	261%	156%	824%
	Media TP	Urban	-2.398	2.233	4.631	5.579	3.346	-193%	150%	-333%
		Rural	-577	-938	-361	-887	51	63%	-6%	54%
Biology	Media Total	Urban	32.882	29.078	-3.804	30.138	1.060	-12%	4%	-8%
		Rural	1.185	1.335	150	1.789	454	13%	34%	51%
	Media HC	Urban	30.131	27.213	-2.918	28.726	1.513	-10%	6%	-5%
		Rural	868	477	-391	402	-75	-45%	-16%	-54%
	Media TP	Urban	2.751	1.866	-885	1.412	-454	-32%	-24%	-49%
		Rural	317	858	541	1387	529	171%	62%	338%

(*) Basica (Elementary Education) includes grade 1 through 8th and Media Total (High School) includes grades 9th through 12. The latter in grades 11 and 12, is divided between two options: Scientific-Humanistic that is the common high school with emphasis on science and humanistic, and Technical Professional related to vocational training.

Subject	Grade	Zone	2004	2010	Δ 10-04	2015	Δ 15-10	Δ % 04-10	Δ % 10-15	Δ % 04-15
Physics	Media Total	Urban	4.311	2.177	-2.134	3.009	832	-49%	38%	-30%
		Rural	-589	-480	109	-162	318	-18%	-66%	-72%
	Media HC	Urban	6.764	4.615	-2.149	5.209	594	-32%	13%	-23%
		Rural	-275	-122	153	163	285	-55%	-233%	-159%
Chemistry	Media TP	Urban	-2.453	-2.438	15	-2.200	238	-1%	-10%	-10%
		Rural	-314	-358	-44	-325	33	14%	-9%	4%
	Media Total	Urban	12.476	8.606	-3.870	8.770	164	-31%	2%	-30%
		Rural	-403	-674	-271	-635	39	67%	-6%	58%
Vocational Education	Media HC	Urban	13.997	10.370	-3.627	10.512	142	-26%	1%	-25%
		Rural	-72	-290	-218	-277	13	303%	-4%	285%
	Media TP	Urban	-1.521	-1.764	-243	-1.742	22	16%	-1%	15%
		Rural	-331	-384	-53	-358	26	16%	-7%	8%
Philosophy	Media TP	Urban	43.699	67.060	23.361	85.132	18.072	53%	27%	95%
		Rural	2.418	838	-1.580	1.485	647	-65%	77%	-39%
Physical Education	Media HC	Urban	3.389	-2.483	-5.872	1.824	4.307	-173%	-173%	-46%
		Rural	-58	-763	-705	-683	80	1215%	-10%	1078%
	Básico	Urban	50.515	114.529	64.014	176.854	62.325	127%	54%	250%
		Rural	-29.557	-20.190	9.367	-14.331	5.859	-32%	-29%	-52%
Arts	Media Total	Urban	38.782	91.040	52.258	161.555	70.515	135%	77%	317%
		Rural	1.140	435	-705	378	-57	-62%	-13%	-67%
	Media HC	Urban	27.222	75.087	47.865	140.296	65.209	176%	87%	415%
		Rural	584	-13	-597	-17	-4	-102%	31%	-103%
Religion	Media TP	Urban	11.560	15.953	4.393	21.259	5.306	38%	33%	84%
		Rural	556	447	-109	395	-52	-20%	-12%	-29%
	Básico	Urban	-15.714	5.067	20.781	15.510	10.443	-132%	206%	-199%
		Rural	-54.235	-43.260	10.975	-37.988	5.272	-20%	-12%	-30%
Study and Understanding of the Nature	Media Total	Urban	32.486	40.804	8.318	58.458	17.654	26%	43%	80%
		Rural	546	-158	-704	-176	-18	-129%	12%	-132%
	Media HC	Urban	27.543	35.620	8.077	52.562	16.942	29%	48%	91%
		Rural	386	-207	-593	-205	2	-154%	-1%	-153%
Study and Understanding of the Environment	Media TP	Urban	4.943	5.184	241	5.895	711	5%	14%	19%
		Rural	160	50	-110	29	-21	-69%	-42%	-82%
	Básico	Urban	117.859	110.412	-7.447	101.000	-9.412	-6%	-9%	-14%
		Rural	1.658	2.734	1.076	1.070	-1.664	65%	-61%	-35%
Study and Understanding of the Environment	Media Total	Urban	-10.051	-13.042	-2.991	-8.640	4.402	30%	-34%	-14%
		Rural	-41	-638	-597	-585	53	1457%	-8%	1326%
	Media HC	Urban	-10.872	-13.670	-2.798	-9.153	4.517	26%	-33%	-16%
		Rural	-243	-757	-514	-690	67	211%	-9%	184%
Study and Understanding of the Environment	Media TP	Urban	821	628	-193	513	-115	-24%	-18%	-38%
		Rural	202	119	-83	105	-14	-41%	-12%	-48%
Study and Understanding of the Environment	Básico	Urban	-64.637	-54.624	10.013	-54.831	-207	-15%	0%	-15%
		Rural	-67.982	-55.691	12.291	-51.058	4.633	-18%	-8%	-25%
Study and Understanding of the Environment	Básico	Urban	-87.895	-72.137	15.758	-68.068	4.069	-18%	-6%	-23%
		Rural	-72.021	-59.542	12.479	-54.753	4.789	-17%	-8%	-24%

Source: Montoya, A. (2005)

Appendix 5: Shortage or Surplus of Teaching Hours. Projections for 2005- 2015 by grade, geographical location and region.

		2004	2010	Δ 10-04	2015	Δ 15-10	Δ % 04-10	Δ % 10-15	Δ % 04-15
Grade									
1. Pre-Escolar	Urban	98.782	2.988	-95.794	-98.004	-100.992	-97%	-3380%	-199%
	Rural	-2.598	-19.430	-16.832	-38.168	-18.738	648%	96%	1369%
	Total	96.184	-16.442	-112.626	-136.173	-119.731	-117%	728%	-242%
2. Básica	Urban	188.610	558.309	369.699	807.415	249.106	196%	45%	328%
	Rural	-1.065.896	-900.656	165.240	-852.420	48.236	-16%	-5%	-20%
	Total	-877.286	-342.347	534.939	-45.005	297.342	-61%	-87%	-95%
3. Media Total	Urban	285.071	345.717	60.646	520.652	174.935	21%	51%	83%
	Rural	5.711	3.637	-2.074	13.038	9.401	-36%	258%	128%
	Total	290.782	349.353	58.571	533.690	184.337	20%	53%	84%
4. Media HC	Urban	219.236	244.224	24.988	388.345	144.121	11%	59%	77%
	Rural	2.965	889	-2.076	6.242	5.353	-70%	602%	111%
	Total	222.201	245.113	22.912	394.587	149.474	10%	61%	78%
4. Media TP	Urban	65.835	101.492	35.657	132.307	30.815	54%	30%	101%
	Rural	2.746	2.748	2	6.795	4.047	0%	147%	147%
	Total	68.581	104.240	35.659	139.103	34.863	52%	33%	103%
Region	I	6.075	14.995	8.920	23.874	8.879	147%	59%	293%
	II	15.328	18.519	3.191	21.964	3.445	21%	19%	43%
	III	8.236	30.947	22.711	51.964	21.017	276%	68%	531%
	IV	-48.292	-41.640	6.652	-42.236	-596	-14%	1%	-13%
	V	33.019	50.319	17.300	61.573	11.254	52%	22%	86%
	VI	-8.436	183	8.619	8.723	8.540	-102%	4667%	-203%
	VII	-52.504	-37.996	14.508	-33.533	4.463	-28%	-12%	-36%
	VIII	-90.309	-8.601	81.708	46.579	55.180	-90%	-642%	-152%
	IX	-331.797	-296.306	35.491	-286.799	9.507	-11%	-3%	-14%
	X	-297.200	-235.774	61.426	-206.397	29.377	-21%	-12%	-31%
	XI	-1.154	1.103	2.257	2.635	1.532	-196%	139%	-328%
	XII	6.614	5.154	-1.460	3.625	-1.529	-22%	-30%	-45%
	RM	270.098	489.661	219.563	700.540	210.879	81%	43%	159%

Source: Montoya, A. (2005)