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An introductory look at the academic trajectories of ESL students

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AN INTRODUCTORY LOOK AT THE ACADEMIC TRAJECTORIES OF ESL STUDENTS¹

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ABSTRACT

Equal opportunity is the fundamental promise of liberal democratic societies. If multicultural policy in pluralist countries like Canada is to be meaningful, we have a particular obligation to ensure educational opportunity extends to immigrant citizens and their children. Within a theoretical perspective informed by Ogbu and Cummins, this paper uses BC Ministry of Education data to examine the academic trajectories of different ethno-cultural and English proficient subsets of ESL students from the BC grade eight cohort of 1997 (n= 54 436). Results indicate that Chinese speaking ESL students fare very well in the school system even with limited English proficiency, whereas Spanish, Vietnamese and Philippino language speaking students navigate weaker academic trajectories that are further diminished by limited English proficiency. The need to disaggregate data and target support to vulnerable populations is discussed along with other policy implications.

INTRODUCTION

Equal opportunity is the fundamental promise of liberal democratic societies. If multicultural policy in pluralist countries like Canada is to be meaningful, we have a particular obligation to ensure opportunity extends to immigrant citizens and their children; fair opportunity for all social groups is a necessary component of Cummins' (1997) proposal to move from coercive to collaborative social power relations. Given that school is widely and historically recognized as the mediator of labour market opportunities and life chances (e.g. Jencks 1972), the school trajectories of students for whom English is not a first language (hereafter ESL) demand examination.

This paper derives from a larger project that capitalizes on available data to explore the equality of educational trajectories of different subsets of ESL students. While the larger project will examine a host of socio-demographic and structural characteristics in its examination of academic trajectories, this paper provides an initial look at how two factors, ethno-cultural background and English language proficiency, predict the academic trajectories of children of immigrants for whom English is a second language. Different ethno-cultural and linguistically English proficient subsets of immigrant ESL students' trajectories are measured against each other and against a baseline provided by native English speakers (NES).

THEORETICAL BACKGROUND

Ethnicity

Ogbu (e.g. 1992) elaborates an influential theory of minority group school achievement that accounts for the interaction between ethnic minority communities and their environments. He argues the mode of incorporation between

ethnic minorities and the mainstream community predicts academic success. In brief, members of minority communities will adapt to mainstream society differently depending if their ethnic community is an *involuntary minority* whose mode of incorporation was conquest, colonization and slavery, or a *voluntary* or *immigrant minority* who believed the move to a new society would lead to better economic circumstances, overall opportunities and/or political freedom.

The latter group exhibits a dominant pattern of 'community forces' or beliefs that uncritically accepts folk theories of upward mobility in the new society; hardships are temporary obstacles, removable through education and hard work. Accordingly, immigrants are willing to acquiesce to, and trust in, host society institutions like schools to help them fulfil their aspirations. Generally, they believe more opportunity exists in the host society than the old one, linguistic and cultural hurdles can be overcome, and discrimination is an unfortunate but not insurmountable obstacle. These beliefs translate into academic pressure on children.

By contrast, involuntary minorities, colonised peoples, believe hard work and education contribute little to their mobility in a racist society, and are consequently distrustful of mainstream (White) institutions and their personnel. The standard language and behaviour of school is equated with the dominant group's oppressive culture. Cultural and language differences between themselves and the mainstream are not obstacles to overcome for instrumental reasons, but markers of identity to be maintained. Moreover, they compare their opportunities, unfavourably, to those of the White middle class, not to those they had 'back home.' Consequently, attitudes toward schooling may be very anti-success.

Despite the elegance and face validity of Ogbu's theory, it is "undoubtedly oversimplified" (Cummins 2000, p. 42). Many American studies document

differential success rates of various voluntary ethno-cultural immigrant groups (e.g. Portes and Macleod 1996; Kao 1995) and Cummins (1997) asserts that Afro-Caribbean and Portuguese and Spanish speaking immigrant groups fare poorly in the Canadian context. Ogbu's strength is his insight that coercive power relations in the broader society find their way in to the structures and operations of schooling (Cummins 2000 pp. 42-43). Cummins posits that social power relations operate in ways similar to, but not co-extensive with, Ogbu's voluntary-involuntary dichotomy.

According to Cummins (1997), 'coercive' power relations are enacted by a dominant group to the detriment of a subordinated group. Educational policies that inadequately support the success of minority students constitute coercion. In coercive relations, power is a scarce resource to be hoarded. By contrast, Cummins argues for the expansion of 'collaborative' power relations. Collaborative power relations are democratic and assume power is not finite and can be generated through positive interpersonal and inter-group relations. Power is created with others, rather than exercised over others.

Like Ogbu, Cummins posits that wider social inter-group power relations — 'macro-interactions' — be they coercive or collaborative, filter into the school system through educators' expectations, assumptions and goals for teaching minorities, and through policies, programs, curricula and assessment. These attitudes and educational structures influence the 'micro-interactions' educators have with individual students. Cummins calls these micro-interactions "the most immediate determinate of student academic success or failure" (1997, p. 425).

We interpret this to mean to the extent *any* minority group, voluntary or involuntary, suffers the discrimination and social conditions (coercion) similar to those of Ogbu's involuntary minorities, the dominant pattern of achieve-

ment of that group will be diminished educational trajectories. In short, ethno-cultural groups that perceive little opportunity for upward mobility through schooling are likely to travel less successful academic paths.

Linguistic proficiency

Clearly, English language proficiency is also a key predictor of academic success (e.g. Rumberger and Larson 1998). Cummins (e.g. 2000) hypothesises that language tasks are more difficult to the degree they are context reduced as opposed to context embedded, and cognitively demanding as opposed to cognitively undemanding. Unlike conversational language, academic language tends toward the former item in each distinction; typically learners take five to seven years to achieve grade level equivalency in academic language with native speakers (e.g. Cummins 2000; Klesmer 1994; Collier 1987). Therefore immigrants' age of arrival and prior experiences with English mediate their eventual academic language proficiency. An earlier age of arrival, or English study before arrival provides more time to learn English up to a level approaching equivalency with native English speaking peers.

Nonetheless, Cummins (e.g. 2000) also asserts learners have a common underlying proficiency (CUP), or a store of "deep" concepts, skills and knowledge that facilitates learning in both the first and second language. This proficiency is often developed in the first language, and Cummins argues it is essential for academic progress. If a student arrives in a new country before developing a minimum threshold of first language academic skills, she may be at risk of poorer language learning and academic progress. More positively, the common underlying proficiency hypothesis states that the knowledge developed in the first language can be transferred to the second language. Students learn new 'labels' for knowledge they already have. Therefore, students with

strong first language literacy and cognitive skills are advantaged in second language situations. In these cases, older arrivals may sometimes be advantaged in the academic environment over their early arriving peers, if the early arrivals did not properly develop the deep cognitive skills in either language.

Finally, different subject areas place different linguistic and cultural demands on ESL learners. While mathematics should not be construed as only *minimally* language dependent (e.g. Chamot and O'Malley 1994; Carrasquillo and Rodriguez 2002), *some* areas of mathematics are less reliant on language than other subjects. Moreover, most students have prior knowledge of mathematics that crosses cultural boundaries (Chamot and O'Malley 1994) and *some* ESL students have school experiences in mathematics more extensive than native English speakers (e.g. Seror 2002).

By contrast, linguistic and cultural supports are rare in the humanities. "No area of the school curriculum is more closely linked to culture than literature" (Chamot and O'Malley 1994, p. 288) with its "overwhelming array of unfamiliar vocabulary" (ibid. p. 290). Furthermore, reticent ESL students may lack the 'cultural capital' to participate and display knowledge in literature discussion (Early 2003). Later entry to the school system may entail disadvantages in English due to the students' dissimilar prior knowledge and experiences in this subject area.

Empirical work

Canadian empirical work documenting ESL trajectories has been relatively sparse, and somewhat contradictory. Gunderson (2007) samples five thousand ESL students from Vancouver over a ten-year period and measures their participation and performance in four academic subjects: math; science; social studies and English. He reports excellent outcomes for Chinese speaking students, but

a very high disappearance rate from academic courses for other ethno-cultural groups, particularly Vietnamese, Tagalog and Spanish speakers. Disappearance from these courses may or may not correspond to early school leaving.

Other researchers also indicate early school leaving is common among ESL students. Watt and Roessingh (1994) and Watt and Roessingh (2001) both report a blended dropout rate of over 70% for ESL students in their study, created by beginner ESL students who drop out at a rate of 90%, and advanced ESL students who drop out at a rate closer to 50%. Like Watt and Roessingh, Derwing et al.(1999) examine an urban school board in Alberta and find 46% of ESL students fail to gain either a diploma or one hundred credits of study necessary to continue education in adult programs. If meeting this latter outcome is also classified as 'non-completion' (as Watt and Roessingh 2001 indicate is appropriate) the ESL non-completion rate rises to 60% of students, double the rate for all students, inclusive of ESL populations, in the province.

By contrast, Samuel, Krugly-Smolka, and Warren (2001) find that secondary school age "voluntary immigrants", predominately ESL and of various ethno-cultural backgrounds, tend to outperform Canadian born adolescents of Canadian born parents when the indicator of achievement is a self reported average of last marks attained across different subjects.

Similarly Worswick (2001) examines children ages four to fifteen drawn from National Longitudinal Survey of Children and Youth (NLSCY) data. Based on NLSCY (i.e. not school) test results, the children of non-English or French speaking immigrant parents have similar mathematics outcomes to their NES peers but face initial disadvantages in reading and writing. However, these differences disappear with time in the Canadian school system, such that by

age thirteen the children of immigrants, many of whom were born in Canada, have equaled or surpassed their Canadian born counterparts in all areas.

Finally, Chow (2000 and 2004) examines the outcomes of Chinese students. Of the Chinese-Canadian students in Canada for five years or less, higher self rated socio-economic status, the presence of a father at home, political reasons for immigration and English language proficiency significantly predict self-reported marks. Many of these students also report high aspirations. Chow (2004) further shows that ethnic self-identification, Chinese language proficiency and ethnic connectedness and internalization of values also predict self-reported success in a sample of over five hundred Chinese high school students.

This paper stems from a project where the goal is to reconcile and clarify these somewhat contradictory results by examining the trajectories of clearly defined subsets of the ESL population. As such it addresses three questions:

- How do ESL academic trajectories vary by ethno-cultural background?
- How do ESL academic trajectories vary by English language proficiency?
- How do these two factors interact?

METHODS

Data were provided by the BC Ministry of Education through *Edudata Canada*. The data comprise a census sample of the British Columbia grade eight² cohort of 1997. The data are longitudinal forward to 2003 and backward to 1991. Students were first divided into ESL and native English speakers (NES). ESL students were defined as those who spoke a language other than English at

² Typically grade eight is the first year of secondary school (high school) in BC. However, some school districts have junior secondary schools (grades eight to ten) and some have middle schools (grades six to eight).

home and received at least one year of ESL service in their educational career. NESs were those who only ever claimed to speak English at home and who had never received ESL service (ESL $n = 7527$; NES $n = 40\,698$). Students fitting neither category, and those born before 1983, were excluded.

To address the first and third research questions, ESL students were then subdivided into the seven most frequently occurring non-English home language groups of 1997 to proxy for ethnicity. These were: Chinese; South Asian, including Punjabi, Hindi, Gujarati and Urdu; Vietnamese; Philippino, including Tagalog and Pilipino; Spanish; Persian; Korean; and an eighth remainder category, Other. These are referred to hereafter as 'ethno-cultural groups.' To address the second and third research questions, ESL students who needed two or more years of ESL classes in high school, and three or more years of ESL classes in high school, were extracted from the sample as proxies for students with low levels of English language proficiency upon entry to high school. These students are referred to hereafter as 'beginner' and 'low beginner' ESL students. The dependent variables are five and six-year graduation rates, enrolment and final course percentages in Principles of Math 12 (academic math) and English 12 (academic language arts), and enrolment in 'low track' courses. The former two variables are derived from the Ministry data. The latter three are original variables in the data set.

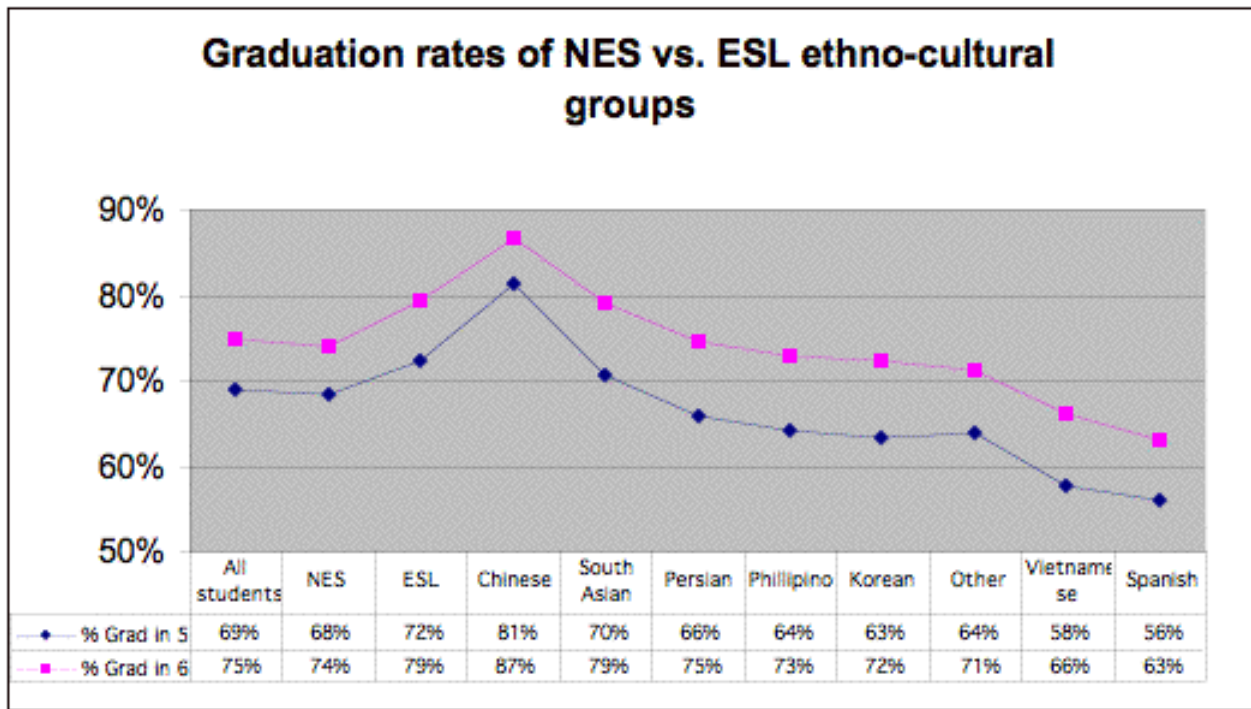
RESULTS

Graduation rates

The first proposition of the research is that academic trajectories will vary by the individual ethno-cultural backgrounds of the students. Figure 1, below, represents a cross-tabulation of the five and six year graduation rates of the native English speakers (NES), all ESL students, and ESL students subdivided

into ethno-cultural groups. Although ESL students' aggregate graduation rates surpass NESs, the large number of Chinese speaking graduates in fact raises the aggregate ESL average. Other ethno-cultural groups fare slightly worse than NESs and substantially worse than Chinese speakers. The graduation rates for Spanish and Vietnamese speakers are particularly low.

FIGURE 1: FIVE AND SIX YEAR GRADUATION RATES OF NESs, ESL STUDENTS IN AGGREGATE, AND EIGHT ETHNO-CULTURAL ESL SUB-GROUPS



n: NES=40 698; ESL= 7537;Chinese=3365; South Asian=1470;Vietnamese=373;Phillipino =323; Spanish=291;Persian=284; Korean=239, Other=1192.

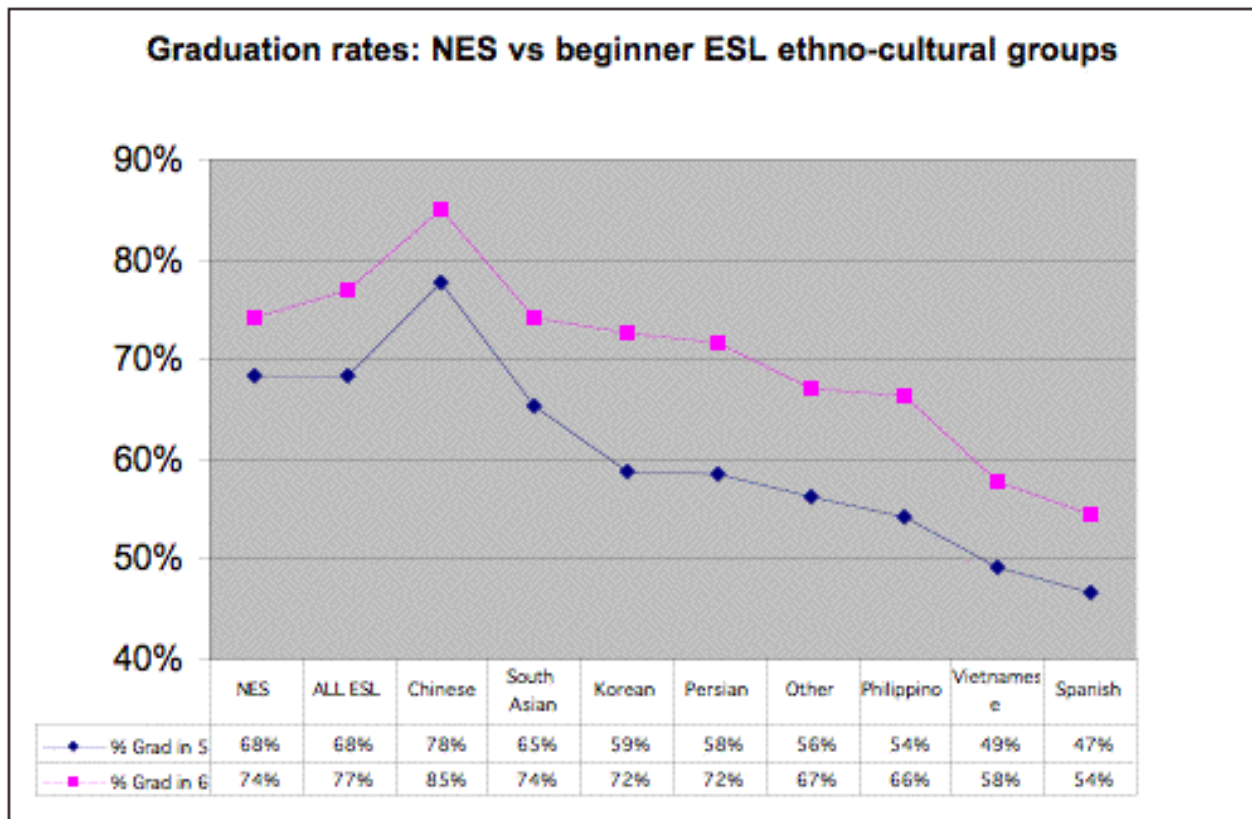
Figure 1 also illustrates how the additional year not only raises the graduation rate for all groups, but also modestly decreases the equity gap in outcomes between various home language ESL groups and NESs. The five-year graduation rate for Korean speakers is 5% behind NESs, the six-year rate only 2%, for example. This relatively unexceptional increase in equity holds when comparing Persian, Phillipino, Korean, Other, Vietnamese and Spanish speakers to NESs.

Although there are, as predicted, differences in graduation outcomes among ethno-cultural groups, and Vietnamese and Spanish speakers' outcomes are particularly unsatisfactory, these results are not as dramatic as those reported by Watt and Roessingh (1994 and 2001) or Derwing et al. (1999). These reasonably positive results for ESL students may result from definitions. In this analysis, all those who claimed a language other than English as their language spoken at home, and who received ESL service at some point in their educational careers are defined as 'ESL' students. In short, the sample includes many students who received ESL service only in the primary grades, and who therefore had at least the five to seven years necessary to achieve grade level proficiency with their NES peers (e.g. Cummins 2000).

We expected results would differ for students who still required ESL service when at high school, i.e. students who were still at beginner levels of English language proficiency upon high school entry. Figures 2 and 3 below show the five and six-year graduation rates for students who required two or more years of ESL service at the high school level and three or more years of service at the high school level; these 'years of ESL service' variables proxy decreasing levels of English language proficiency.

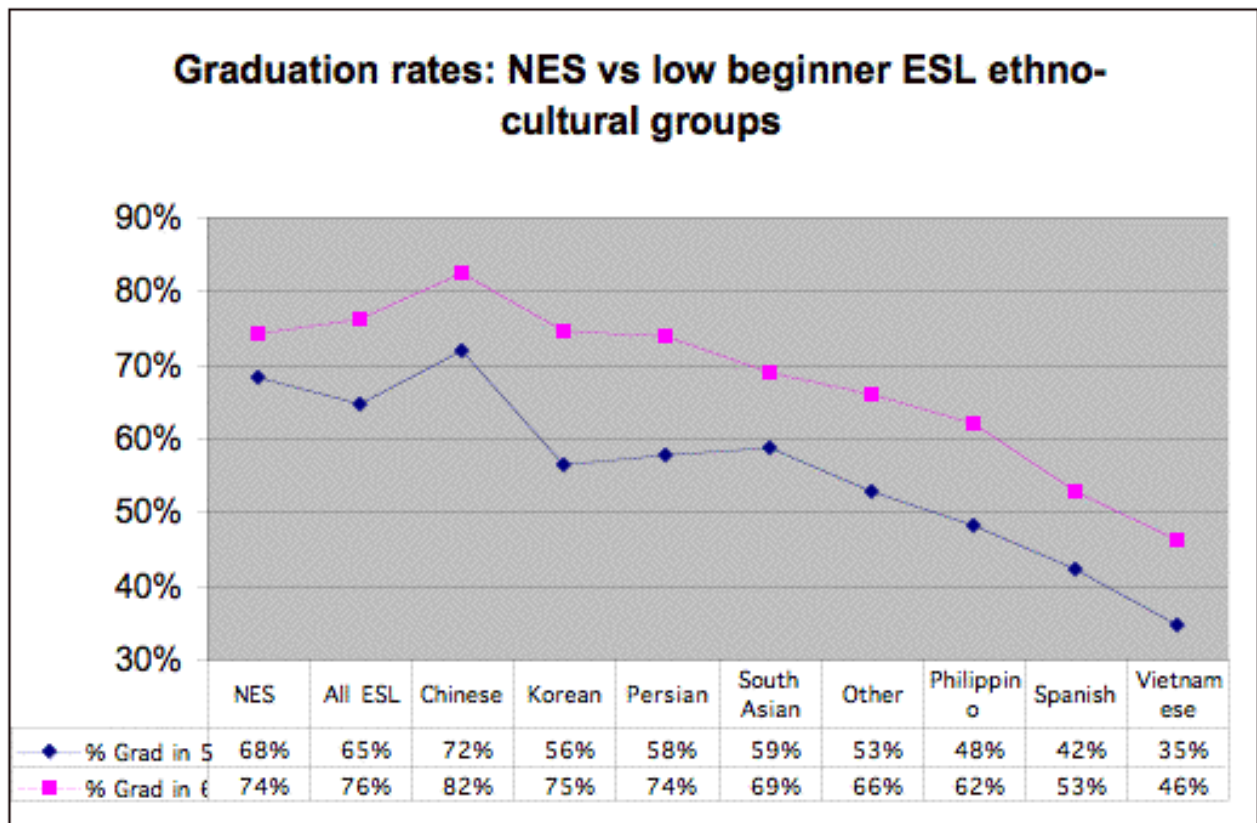
Although aggregate ESL graduation rates remain remarkably high in both figures, again it is the strong performance of Chinese speakers pulling aggregate ESL graduation rates upwards. Whether requiring two or three years of high school ESL, the five-year graduation rates of all groups except Chinese speakers are very low, generally below 60%. The worst outcomes are among ESL speakers of Spanish, Vietnamese and Philippino languages. Only about one third of Vietnamese speakers who required three or more years of ESL service graduated in five years, for example. However, readers will note the low numbers in this latter analysis.

FIGURE 2: FIVE AND SIX YEAR GRADUATION RATES OF NESs VS. BEGINNER ESL STUDENTS, IN AGGREGATE AND ETHNO-CULTURAL SUB-GROUPS



n: All ESL = 3540; Chinese=1865; South Asian – 549; Korean=109; Persian=120; Other =349; Philippino=142; Vietnamese=218; Spanish=116.

FIGURE 3: FIVE AND SIX YEAR GRADUATION RATES OF NESs VS. LOW BEGINNER ESL STUDENTS, IN AGGREGATE AND ETHNO-CULTURAL SUB-GROUPS



n: All ESL = 1224; Chinese=734;Korean=55; Persian=73; South Asian=126; Other=114; Philippino=50; Spanish =19; Vietnamese=26.

Perhaps the most striking feature of Figures 2 and 3 though, is the ameliorative effect of allowing ESL students an extra year for graduation. While in Figure 3 the five-year graduation rate for Korean speakers is 56%, compared to 68% for NESs, the six-year graduation rate for Koreans skyrockets to 75%, compared to 74% for NESs. This is the most dramatic example of the extra year both raising the overall graduation rate and narrowing the equity gap between groups. The same pattern holds when comparing all other groups to NESs, though the narrowing of the equity gap is modest among the most disadvantaged ethno-cultural groups, the Spanish and Vietnamese speakers.

The second most striking finding is that their level of English language proficiency affects different ethnic groups differently. Whereas Chinese speakers are remarkably resilient in the face of barriers erected by limited English proficiency, the more 'at-risk' ethno-cultural groups face a greater challenge when encountering the same hurdle. The Vietnamese speakers who require three or more years of high school ESL graduate in six years at rates 20% lower than Vietnamese speakers in aggregate. The analogous drop for Chinese speakers is only 5%.

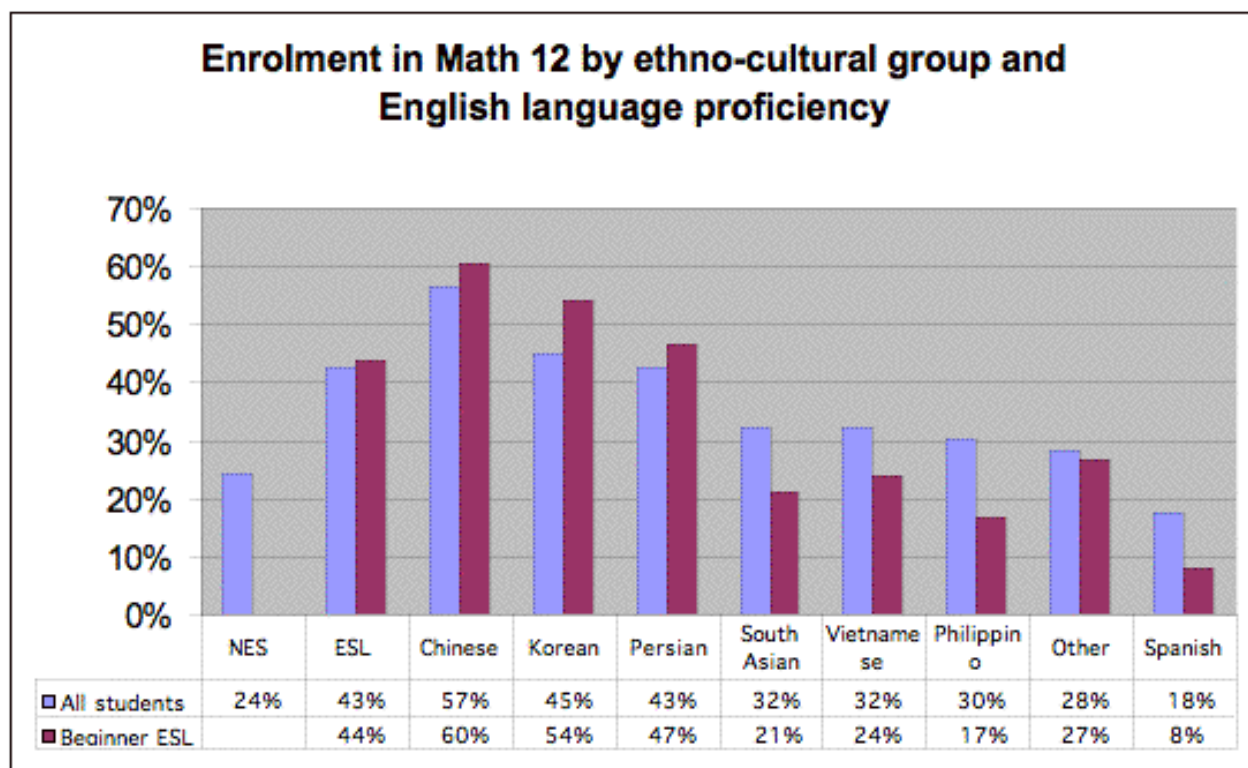
Enrolment and performance

The next dependent variables are enrolment and performance in two academic courses, Math 12 and English 12. Results are again distinguished by ethno-cultural group and English language proficiency. Total ns in Figures 4 through 7 are the same as those in Figures 1 and 2.

Figure 4 below shows the impressive participation rates in Math 12 of ESL students in aggregate, but again illustrates how the disproportionate enrolment of the large number of Chinese speakers, and to some degree the smaller numbers of Persian and Korean speakers raises the aggregate average.

Nonetheless, excepting Spanish speakers, all ethno-cultural subgroups participate at rates higher than native English speakers. The story changes for beginner ESL students. Chinese, Korean and Persian students are actually *more* likely to participate in Math 12 if they are beginner ESL students, a choice that may speak to common underlying proficiency, if we assume these are later arriving students with rigorous math training. However, South Asians, Philippino and Spanish language speakers all suffer significant drops in Math participation at beginner levels of ESL.

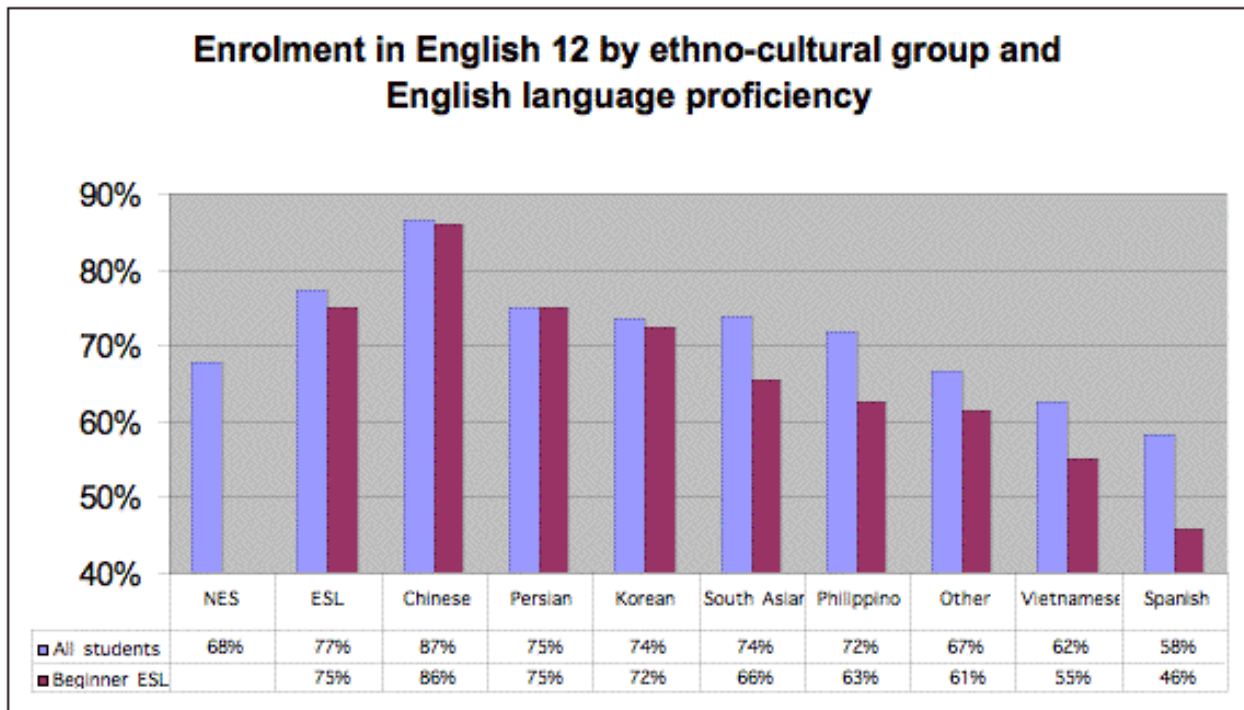
FIGURE 4: ENROLMENT IN MATH 12 BY ETHNO-CULTURAL GROUP AND ENGLISH LANGUAGE PROFICIENCY



Enrolment in English 12 (see Figure 5) exhibits similarities and differences to Math 12. ESL students in aggregate do enroll in English 12 at higher rates than native English speakers, again largely due to the upward pull of Chinese speaking students. Nonetheless other ethno-cultural groups' enrol-

ment is also high; only Vietnamese and Spanish speakers participate at lower rates than NESs. In fact, it is noteworthy that while there is, unsurprisingly, no 'advantage' in English 12 enrolment to being a Chinese, Korean or Persian *beginner* ESL student, as there is in Math 12, these three groups' participation nonetheless *still* outpaces NESs when they are beginner ESL students. By contrast, Philippino, Vietnamese and Spanish participation rates in English 12 fall substantially below the NES baseline when these students are beginners in ESL.

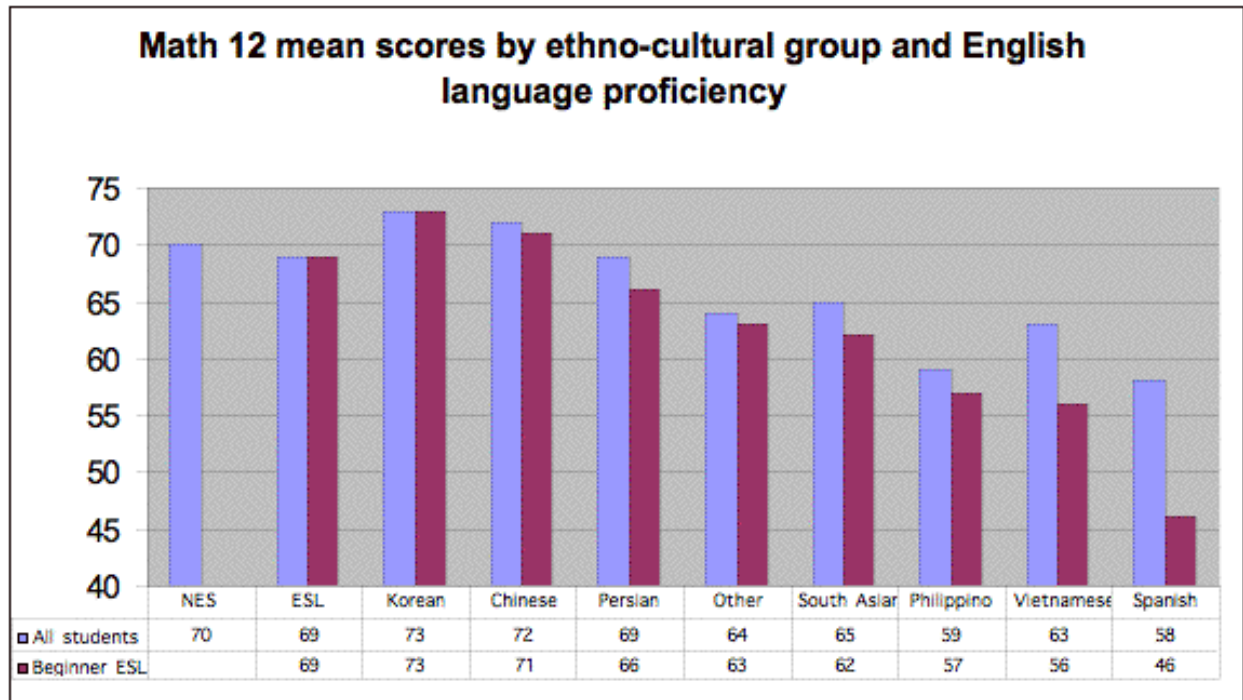
FIGURE 5: ENROLMENT IN ENGLISH 12 BY ETHNO-CULTURAL GROUP AND ENGLISH LANGUAGE PROFICIENCY



The advantage to ESL students in Math 12 and English 12 enrolment is largely not duplicated in performance as indicated by final percentage mean scores. Figure 6 shows a small advantage in Math 12 to Koreans and Chinese, even as beginner ESL students; while other ethno-cultural sub-groups fall 1-12 points below the NES baseline. This gap widens further for Philippino and

Vietnamese beginner ESL students, and quite dramatically for beginner ESL Spanish students, who fall 24 points below their NES peers.

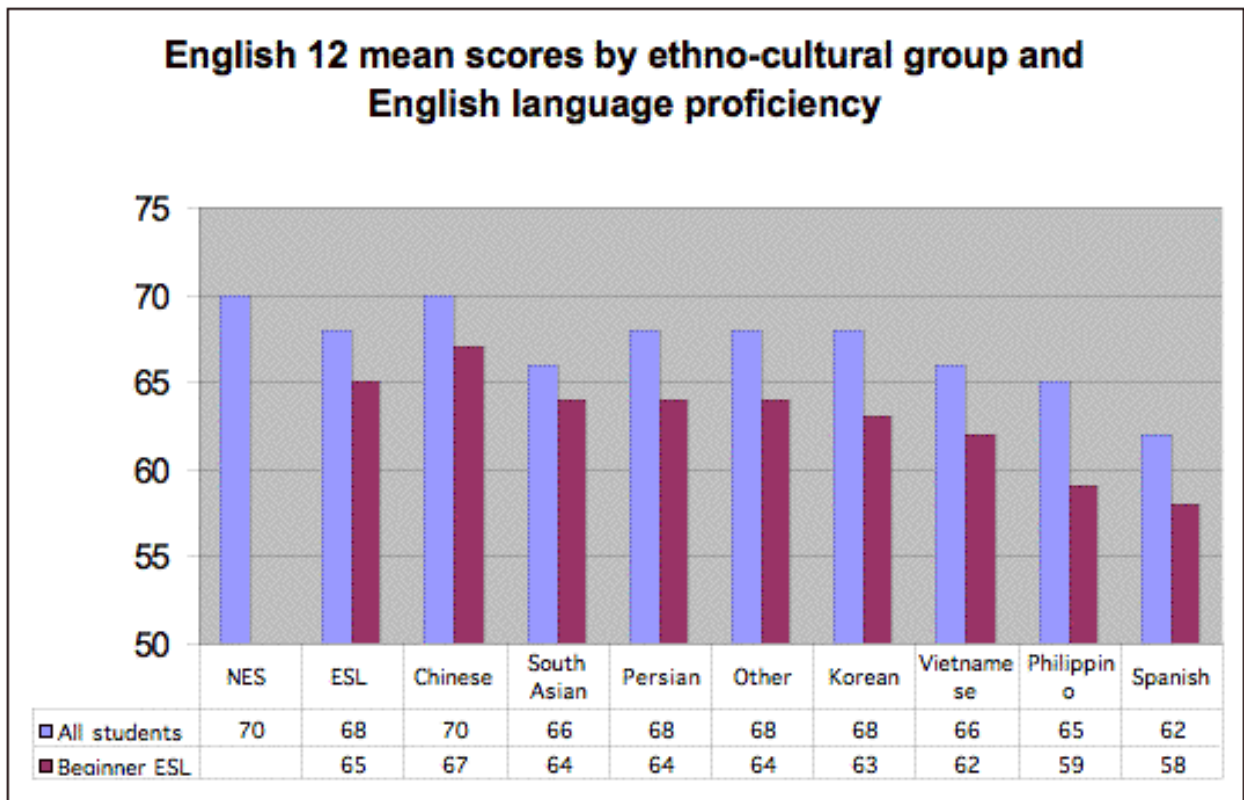
FIGURE 6: MEAN SCORES IN MATH 12 BY ETHNO-CULTURAL GROUP AND ENGLISH LANGUAGE PROFICIENCY



Mean scores in English 12 are the only dependent variable where NESs equal or better *all* ethno-cultural sub-groups of ESL students (see Figure 7). English 12, as predicted by Chamot and O'Malley (1994) is a difficult class for ESL students. For example, ESL (i.e. aggregated ESL), Chinese, and Korean 'beginner ESL' English 12 scores are lower than ESL (aggregated), Chinese, and Korean 'all students' scores. In other words, the less fluent ESL students are, the lower their English 12 scores. But the analogous comparison in Math 12 shows mean scores that are equivalent or almost equivalent between beginners and 'all students' these three categories. It seems that prior mathematical knowledge indeed transfers more easily to second language settings than do the prior literacy skills and cultural knowledge needed to succeed in

second language Language Arts (i.e. English) study. This is not surprising, though it is interesting that while no ESL sub-groups outperform NESs in English 12, larger equity gaps occur between NESs and disadvantaged ethno-cultural groups in Math 12 than English 12. As in Math 12, the largest English 12 equity gaps are between NESs and Philippino, Spanish and Vietnamese beginner ESL students.

FIGURE 7: ENGLISH 12 MEAN SCORES OF ALL STUDENTS AND BEGINNER ESL STUDENTS

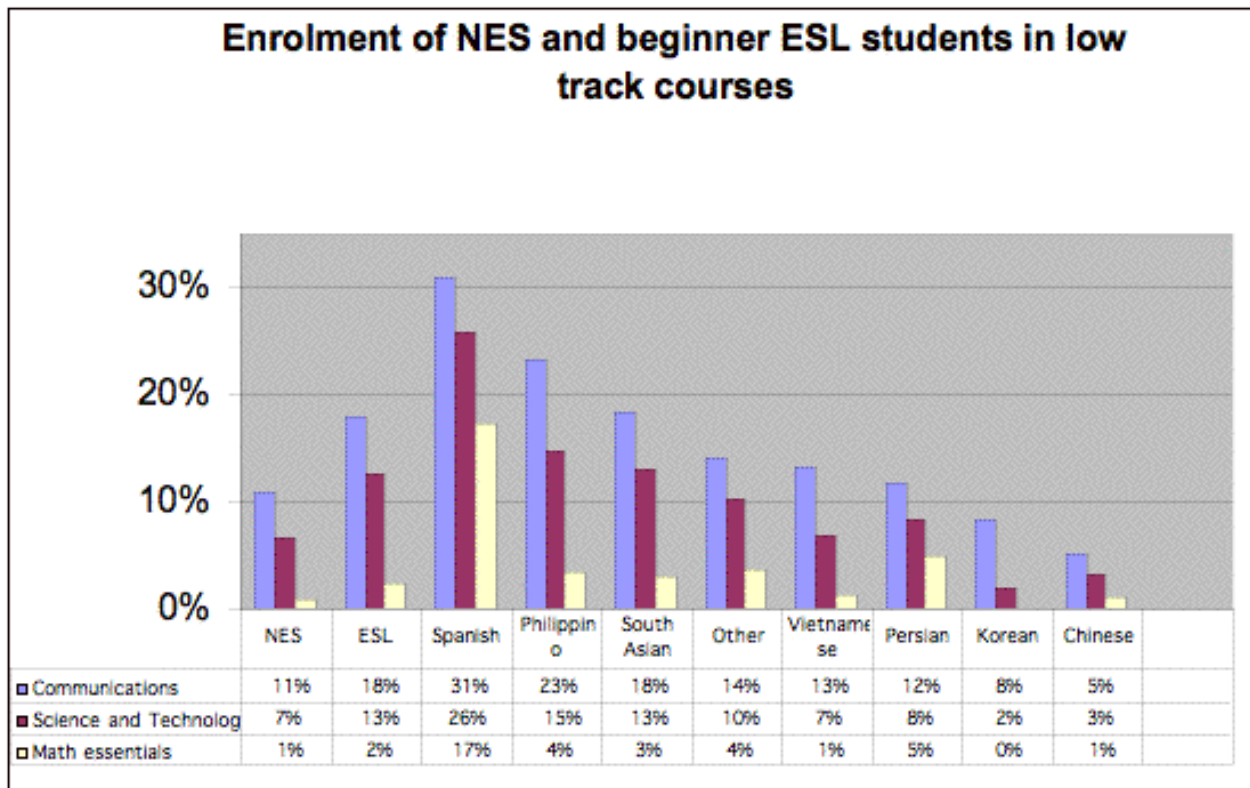


Given the demonstrably lower trajectories navigated by beginner ESL students of Spanish, Philippino and Vietnamese language backgrounds, we hypothesized that these groups would be over-represented in 'low-track' courses. Although students are not formally tracked in BC, most academic courses have a differentiated counterpart that provides needed graduation

credit in that subject area, but which will not provide university entrance. 'Communications' can be taken in lieu of English, 'Science and Technology' in lieu of any other Science, and 'Essentials of Math' in lieu of Principles of Math.

Figure 8 shows that, as predicted, Spanish and Philippino beginner ESL students are over-represented in low-track courses, as are South Asians. However, Vietnamese representation is not notably different from NESs. Unsurprisingly, given previous results, Koreans and Chinese are underrepresented in these courses.

FIGURE 8: ENROLMENT OF NESs AND BEGINNER ESL STUDENTS IN LOW TRACK COURSES



DISCUSSION AND IMPLICATIONS

All results should be interpreted in light of their limitations, of which the most notable are: the lack of accounting for socio-economic status; the inability to account for immigration status; the omission of students who arrived after grade eight, and the fact that numbers become quite small when analyzing some 'beginner ESL' ethno-cultural subgroups. Nonetheless some general interpretations and suggestions might be made.

The most salient policy implication is the need to disaggregate data when studying student trajectories and outcomes. Hansard records BC's current Minister of Education describing ESL high school completion rates as better than any other group the Ministry of Education measures (Victoria, Parliamentary Debates, p. 3530). The results here indicate that while that statement is certainly true, in fact the high achievement of Chinese speakers masks the fact that identifiable subgroups of the ESL population are faring poorly in the school system. Further to this point is the need for clarity in definitions. If ESL students are defined as any students who have ever received ESL service in their school careers, their high school trajectories will look much different than if they are distinguished from those who require ESL service in high school.

While it is not surprising that ESL students who receive ESL service only in elementary school fare similarly to NESs in the late stages of high school, the results also indicate that some ethno-cultural groups are still able to fare very well when at beginning levels of ESL upon entry to high school. It is likely these positive results owe at least partially to rigorous first language schooling in these students' home countries which has instilled the thinking skills and knowledge that can be successfully transferred to English via their common underlying proficiency. Nonetheless, even the latest arrival to the population

studied would have entered the BC school system in grade eight, thereby experiencing a minimum of five years of BC education; it may be unreasonable to attribute all of a student's grade twelve success to literacy skills developed prior to these five years.

The positive outcomes of the Chinese and Koreans in this study may owe also to the values these communities attach to formal education, according to the so-called "model minority" literature generated by American researchers (e.g. Kao 1995; Peng and Wright 1994). These values correspond with voluntary minorities' community forces as described by Ogbu. However, the differential achievement of other ethno-cultural groups in this study indicate Ogbu's voluntary-involuntary heuristic is indeed oversimplified.³ To the degree that values around formal education predict academic success, some voluntary ethno-cultural minority groups may be more skeptical than others toward the upward mobility our society provides minorities through schooling. Alternatively, it may be that other factors beyond values facilitate or impede success. These likely include the aforementioned first language academic literacy development, and socio-economic status, both of which can only be hypothesized from the data in this study.

Regardless of the reason for differential outcomes though, a second major implication follows from the first. It is not enough to disaggregate by only one background variable. The results here show that it is not *just* particular ethno-cultural groups who fare poorly, and it is not *just* that beginner ESL students fare poorly, but it is beginner ESL students from particular ethno-cultural groups who appear most at risk of severely diminished academic trajectories.

³ Admittedly, some of our ethno-cultural groups probably contain disproportionate numbers of refugees whom Ogbu does not categorise as "voluntary minorities." Nonetheless, "[refugees] share some attitudes and behaviors of immigrant minorities which lead to school success" (Ogbu and Simons, 1998, paragraph 22.)

Therefore, a practical consequence of these policy implications is the need to avoid one-size-fits-all ESL policies, and instead, favour targeting support to the most vulnerable groups. BC school boards receive very flexible ESL funding from the Ministry of Education. Boards may want to consider targeting this money to the schools containing the most vulnerable ESL populations. These funds could be used a number of ways. An obvious one is the creation of release time for collaboration between ESL and mainstream teachers to support vulnerable students in mainstream classes. As the results show, ESL students from different ethno-cultural groups are likely to need support in different mainstream classes (i.e. Spanish speakers may need more support in mathematics than Chinese; all groups may benefit from support in English).

Another interpretation is, given that lack of English language proficiency alone need not predict poor outcomes, students with weaker formal schooling backgrounds may need to develop academic knowledge as well as language skills. These twin goals may be best developed through integrated language and content teaching, i.e. mainstream content courses taught with attention to language development by teachers with ESL specialist knowledge (e.g. Brinton, Snow and Wesche 2003; Chamot and O'Malley 1994; Mohan 1986).

Following on this point, it is salient to note that equity gaps in performance occurred in Math and English at the grade twelve level, a year by which ESL support is typically no longer offered, and by which no student in this study had been in the system less than five years. Therefore, some ESL students seem to require ongoing support throughout their school careers. This could be very problematic at the senior levels of high school when pull-out ESL classes do not offer needed credits toward graduation. Either ESL classes should bear credits, or teacher and student schedules should be built such that meaningful support can occur within credit-bearing mainstream classes.

Alternatively, integrated language and academic content courses could be offered for credit, though of course universities would have to recognize such courses if they were to promote equity of opportunity.

A final and extremely important practical consideration is the value of allowing high school ESL students extra time to graduate. Figures 2 and 3 show very clearly how including the extra year to graduate both raises the success rates for all groups and narrows the equity gap between groups. This result is unsurprising given the time needed to acquire academic English, and suggests it may be shortsighted to force ESL students out of high school after a certain age (in BC, the year students turn nineteen). Although most students will not be nineteen before six years of high school, some will. And because extra time is such an effective booster of graduation rates for ESL students, time spent in the system beyond six years may be desirable. Moreover, unlike the population analysed here, many ESL students arrive after grade eight with minimal English skills. Many ESL students arriving at ages fifteen and above will be unable to graduate by age nineteen.

Some of these suggested changes require significant structural reorganization. Failing such substantial changes to the public education system, then, at minimum, front line workers, including counselors, administrators and teachers should be made aware that these vulnerable populations exist and consider the routes they encourage these students to follow, and the support they provide them along the way.

CONCLUSION

This study used the theoretical insights of Ogbu and Cummins to hypothesize that ESL trajectories would differ by ethno-cultural group and English language proficiency upon entry to high school. It further asked what effect the inter-

action of these two factors would have. The results indicated that Chinese speakers outperformed both their ESL peers and native English speakers. To a lesser degree, so did Korean and Persian speakers. These outcomes masked the much poorer performance of Spanish, Vietnamese and Philippino language speakers when 'ESL' was used to label the entire population of students for whom English was not a first language. The latter three groups were particularly at risk when they entered high school at beginner levels of English language proficiency. It was speculated that Chinese speakers at beginner levels of English may not have been similarly at risk due to a well-developed common underlying proficiency via their first language schooling and/or their community values around formal education. In any case, Ogbu's 'voluntary' status appeared insufficient for predicting outcomes. The major policy implications were the need to disaggregate data for policy decisions, the need to target ongoing support to identifiable vulnerable groups in effective ways, including noting the types of courses most necessitating extra support, and finally, the need to provide ample time for ESL students to graduate.

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