Lost Identities: The Credentialing of Immigrant Engineers from the Former Soviet Union in Ontario

by

Oksana Ostapchenko

A thesis submitted in conformity with the requirements for the degree of Master of Arts,
Graduate Department of Humanities, Social Sciences and Social Justice Education (formerly Sociology and Equity Studies)
Ontario Institute for Studies in Education
University of Toronto

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Oksana Ostapchenko
Sociology and Equity Studies in Education Department
University of Toronto

Abstract

This study examines how the credentialing process for foreign-trained engineers implemented by the Professional Engineers of Ontario (PEO) affects newcomers from the former Soviet Union and Russia seeking to re-enter the profession. Applying critical sociological theory to its analysis of data generated through qualitative methods, it highlights how the ethnic, racial, and educational background of applicants shapes their encounters with the PEO and the outcome of their applications. It sheds light on the crises of identity and in social and family relations experienced by these individuals, as well as the lack of supporting services to address such crises. This study contributes to existing literature on the subject by taking a new approach to the credentialing of foreign-trained engineers in Ontario, focusing on the perspective of individual applicants rather than structural factors. It concludes with specific recommendations on how the process could be improved and the regulatory body itself reformed.
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Dedication

This thesis is dedicated to Jacob and Philip, my children.
Table Of Contents

INTRODUCTION ........................................................................................................1
  Purpose of the Study ..............................................................................................2
  Research Questions and Main Arguments.............................................................3
  Methodology and Demographic Sample...............................................................3
  Background of the Study ......................................................................................6
  Self-Positionality and Limitations........................................................................10
  Overview of the Study .........................................................................................12

CHAPTER ONE: RUSSIAN ENGINEERS AND THE PEO’S HISTORY 13
  The Creation of the PEO .......................................................................................13
  Definition of Key Terms .......................................................................................15
  History, Motives, and Rationales Underlying the PEO’s Creation ......15
  The Impact of Occupational Closure on Immigrant Engineers: The Specific Case of
  Russian Engineers in Ontario .............................................................................20
  Technical skills of Russian Engineers and the Canadian Climate.......22
  A Brief History of the Engineering Sciences in Russia .........................24
  Soft Skills: The PEO’s Strategic Ambiguity ...............................................26
  Media Representations of Russia and the Effects on Professional Credentialing 31

CHAPTER TWO: RUSSIAN WHITENESS AND IDENTITY CRISIS 33
  Basic Tenets of Critical Race Theory .................................................................34
  Whiteness and Racial Identity in Russia .............................................................35
  How Immigration to Canada Challenges Russian Racial Identities ....38
  The Intersection of Race and Gender in the Identities of Russian Engineers 44
CHAPTER THREE: IMMIGRANT WOMEN ENGINEERS ..........46

Immigrant Women Engineers and the Overall Situation of Immigrant Professional Women In Canada .................................................................48

Russian Immigrant Women Engineers in Toronto .......................52

Balancing Family, Work and the P.Eng. License Preparation ..........56

Conclusion ..................................................................................58

CHAPTER FOUR: THE PARTICIPANTS’ PERSONAL TRAJECTORIES AND RECOMMENDATIONS FOR CHANGE .........................59

Recommendations ........................................................................63

References .....................................................................................67

Appendix A: Recruitment Script ..................................................72

Appendix B: Consent Form .........................................................72

Appendix C: Interview Questions ................................................75
INTRODUCTION

“Deprived of meaningful work, men and women lose their reason for existence; they go stark, raving mad.”
Feodor Michalovich Dostoevsky

Employment is an inseparable part of our lives, providing us with satisfaction, pride and a sense of belonging; and yet it can be a source of frustration and worries for many. As an employment consultant at a non-profit organization in Toronto, Ontario, it was my job to help people with their educational and employment needs. Every week I interviewed on average ten clients, roughly 300 people a year. My office felt like a revolving door at times, as client after client came through my office. The clients are diverse and came from all walks of life; the common feature they all shared was that they were unemployed. I listened to their stories very attentively, and took notes to document their education, work experience, and skills. What I could not record was their feelings, their soulful cries for help, their stress and their frustration.

My office was located in an area where many immigrants from the former Soviet Union and Russia live. I was the only Russian-speaking employment consultant in the organization; consequently, the majority of my clients were Russian-speaking individuals who preferred to discuss their situation in their native language. As I myself am an immigrant from Russia and originally trained as an engineer, I understood their situation and its challenges. Almost all of my Russian clients were highly educated in the professional fields of engineering, medicine, or education. These occupations are regulated in Canada and for my clients this meant that they needed a professional license in order to work in their field of expertise.
I often shared my own career journey with the immigrant engineers who were my clients. Most of the time our discussions revolved around one question: why is it so difficult to get a professional engineering license in Canada? Another issue we often discussed was the feelings and emotions evoked by the licensing process. During these one-on-one meetings I also noticed that clients often blamed themselves for their inability to reenter the engineering field in Canada. In particular, Russian women engineers doubted their professional skills and knowledge because of their unsuccessful attempts in the labour market. These women often felt hopeless, and took any job just to make ends meet.

**Purpose of the Study**

The employment experiences of highly trained immigrants in Canada, the role of the regulatory bodies in restricting their reentry into the profession in this country, and the overall set of issues and barriers this group of immigrants faces while trying to integrate into Canadian society have been widely discussed in scholarly literature (Girard & Bauder, 2007; Hamilton, 2002; Lerner & Menahem, 2003; Li, 2001). This thesis intends to contribute to this growing body of literature by uncovering the social, political and economic structures underlying the credentialing process of foreign-trained engineers, the undercurrents that shape and influence the personal experiences of immigrants from the former Soviet Union and Russia who seek educational and professional credentialing in Ontario. This research will provide a deeper understanding of the effect of these policies, processes, and practices associated with the credentialing process on these newcomers and how they experience the licensing process, with particular attention to its impact on their sense of identity and emotional well-being.
Research Questions and Main Arguments

The research questions of the study were formulated through formal and informal discussions with individuals who are immigrant engineers. The following questions were designed in order to achieve the goals of the study:

1. How are these applicants for a professional engineering license experiencing the process?
2. How is the experience affecting their relationships, especially with their families?
3. How does the process affect these individuals’ self-perception?
4. What are the potential employment paths or trajectories for these applicants?

This study examines how for almost a century the provincial regulatory body, the Professional Engineers of Ontario (the PEO), has acted as a gatekeeper for the engineering profession in Ontario. Using the experiences of immigrants from the former Soviet Union as a case study, this thesis argues that on one hand the licensing process takes a high toll on immigrants’ emotional well-being, sense of identity, and relationships with their families; on another hand, the licensing process seems to have an empowering effect on some immigrants, especially women. This double effect of the licensing process emerges from a close examination of the private experiences of the study’s participants, with a particular focus on impacts such as the loss of occupational identity, identity crises arising along racial and gender lines, and the significant stress and hardship endured by applicants and their families.

Methodology and Demographic Sample

As the research questions dictate, this study is a small-scale institutional ethnography. Institutional ethnography is “a method of inquiry that works from the actualities of people’s everyday lives and experience to discover social as it extends beyond
experiences” (Smith, 2005, p.10). Since the study seeks to explore individual experiences and perceptions, five engineers from the former Soviet Union were recruited for one-on-one interviews. The interviews took place in Toronto, Ontario, from January to April 2012. Meetings were organized in public spaces such as coffee shops, with the exception of one interview, which took place at the participant’s workplace. Each participant was provided with a consent form, which was signed before the interview commenced (see Appendix A for recruitment script, Appendix B for consent form).

The interviews were semi-structured, so as to allow for maximum input from the participants. However, there was a list of questions which guided the interviews (outlined in Appendix C). Permission to conduct the study was granted by the Office of Research Ethics at the University of Toronto.

All of the participants in this study hold engineering degrees from the former Soviet Union and Russia and have previous work experience in the engineering field. Three of the study participants are female: Marina, Olga, and Natasha. Two of the study participants are male: Sergey and Andrei.

At the time of the interview Marina was already licensed. She immigrated to Canada with her family more than ten years ago. She started the PEO’s licensing process in 2002, and had already acquired 48 months of Canadian work experience in the field. Two years later, in 2004, she received her P.Eng. license.

Olga started the licensing process right after she moved to Canada in 2009. Olga has a Master’s degree in electrical engineering, and has published work as well as presented at
several scientific conferences. She came to Canada with her husband and daughter, but divorced from her husband once she started the licensing process.

Natasha came to Canada more than ten years ago. Her first job was unrelated to engineering. Then in 2006 she decided to return to her original profession and found an entry-level job in a small engineering company. Soon after she started the PEO’s licensing process. At the time of the interview Natasha was preparing for her last examination.

Sergey immigrated to Canada with his wife and child in 1997. Shortly after his arrival he applied for the P.Eng. license. He was required to pass ten technical examinations, but failed these exams, being unable to afford the necessary preparation courses. This resulted in the closure of Sergey’s file with the PEO. Three years later he approached the PEO again, as he thought that his Canadian work experience would make a difference in his application. His file was reopened, but the requirement for ten examinations was not changed or removed. Again, Sergei was unable to find the time and financial resources to attend the preparation courses. Consequently, Sergey’s file was closed with the PEO a second time. In Sergey’s own words, “they [the PEO] put a big fat red cross on my file.” The other male participant in the study, Andrey, has been in the process of obtaining his license since 2007. He is divorced and lives alone, but has some responsibility for childcare.

At the time of the interviews, all participants were working full time in engineering-related jobs. The real names of the study’s participants were changed for the purpose of protecting confidentiality.

Since the research method employed by this study is structured around the imperative to examine the PEO’s licensing process through the lens of the participants’ private
experiences, the methods used for the analysis of their discourse—critical race theory and perspectives drawn from feminist and equity studies—also focus on the intersection of the personal and the political, particularly with regard to identity. As such this study not only sheds light on the psychological effect the licensing process has on immigrants, but also reveals how race and gender shape the participants’ experiences and makes visible the political and social structures underlying restrictions to entry into the engineering profession that exist in Ontario. For example, in the second chapter, critical race theory (CRT) is used to analyze how the racial identity of Russian immigrant engineers is challenged by aspects of the PEO’s licensing process and how they strive to “reclaim” their white identities. Yet, as Chowdhury’s (1999) use of a postcolonial approach suggests, identity is a multilayered construct: one identity is not simply replaced by another; instead, identity is gradually modified and built up in over time. In this way critical approaches engaging the complex and multifaceted nature of identity formation and identity crisis among immigrant populations have guided this study’s examination of a very specifically focused group of newcomers to Canada (Man, 2000; Mojab, 1999; Remennick, 1999, 2003).

**Background of the Study**

One of the major problems that immigrants encounter in attempting to integrate into the Canadian labour market is establishing the legitimacy of their imported credentials. As Collins has long argued, credentials have grown to be important attributes in modern society and have completely permeated the occupational structure (1979, 2000). According to Bills (1988), the role of credentials in modern society can be best understood in the context of
three major theoretical perspectives: human capital theory, screening theory, and Collins’s work on credentialism (1979, 2000). Whereas the human capital approach views credentials as an indicator of actual differences in abilities and productivity (Becker, 1985), screening theory argues that employers select candidates on the basis of educational credentials as a means of reducing the risk of bad hiring decisions. As Bills (1988) suggests, this latter approach is especially prominent when there are large pools of candidates and the majority of them are immigrants. In contrast, a third approach, drawing on Collins’s influential work, points to the symbolic and political significance of obtaining the credentials which are recognized by institutional gatekeepers (Lerner & Menahem, 2003).

In spite of the wide difference in how these three theoretical approaches interpret the significance of credentials, they share the notion that credentials play a key role in modern labor markets. Consequently, the devaluing of the credentials of immigrants is one of the ways in which the deskilling of this sector of the population occurs. Lerner and Menahem (2003) refer to this phenomenon as the decredentialization process and define it as the process whereby diplomas signifying the individual’s human capital and skills are formally or informally devalued. Professional associations are key institutions for the regulation of the formal and informal processes by which credentials, sanctioned by law, are awarded. The formal process of decredentialization occurs when professional credentials are not recognized by regulatory bodies in the host society, whereas informal decredentialization occurs due to gatekeeping in organizations and agencies who exercise normative and cultural controls, even if there are no formal barriers to entry (Lerner & Menahem, 2003). Often immigrants face both formal and informal decredentialization processes.
Sociological literature addressing the educational credentialing of newcomers tends to focus on three key themes: 1) the role of the regulatory bodies take in the credentialing process (Girard, 2005; Li, 2001; Girard & Bauder, 2007); 2) the role played by factors such as the immigrants’ country of origin (Boyd & Schellenberg, 2007; Slade, 2003); 3) the impact of race and gender on the re-credentialing process (Man, 2000; Mojab, 1999; Li 2001). A significant body of literature examines the specific question of how the engineering regulatory bodies influence immigrant engineers’ professional integration in Canada. For example, studies by Girard (2005), Skills for Change (1998), Li (2001) and Mata (1999) show how the licensing practices of such bodies, coupled with widely prevalent social practices, disadvantage foreign-trained immigrant applicants. Studies such as that of Boyd & Schellenberg (2007) reveal how an immigrant’s country of origin determines their success in re-entering the engineering occupation in Canada, showing that immigrants educated in Western countries and especially in the US, UK, France, Australia, New Zealand, or Hong Kong, obtain professional status in this country at almost the same rate as Canadian-born and educated engineers, because the Canadian Council of Professional Engineers has a mutual agreement for the recognition of credentials with these countries.

In contrast, Basran and Li’s (1998) study of professionals belonging to visible minorities in Canada shows that for those from non-Western countries, educational re-credentialing is a long and expensive process which is detrimental to immigrants’ incorporation in the occupation. Interestingly, according to Boyd & Schellenberg, “engineers who are educated abroad tend to be slightly more educated than Canadian born, spending on average 5.4 years obtaining their credentials compared to 4.9 years” (2007, p.6). Moreover, in
many ways, knowledge of mathematics, physics, and chemistry—the pillars of engineering science—is culturally neutral; yet the profession’s regulatory bodies consistently seem to prefer Western credentials over their non-Western counterparts, highlighting the culturally biased nature of the engineering credentialing process in Canada.

A number of studies specifically investigate the gendered aspects of the re-credentialing process. For example, Man (2000), shows how gender discrimination is embedded in the Canadian immigration selection process and argues that the definition of skills under the immigration assessment tool favours men. Couton (2002) further corroborates Man’s observations; based on data taken from Citizenship and Immigration Canada (CIC) landed immigration forms, she finds that as more immigrants enter Canada, they are increasingly concentrated in certain occupational groups such as engineering, the medical professions, and education. According to Couton, “Not only are immigrants increasingly likely to have higher educational skills and credentials, they are also more likely to be trained scientists and engineers” (2002, p.117). So although male immigrant professionals experience multiple barriers to finding employment in their field of expertise, immigrant professional women—selected for immigration because of their professional background—often experience an even more dramatic disconnect between their training and work experience and the occupations in which they can actually find employment in Canada. Similar findings are made in the work of Seward and McDade (1988), Li (2001), and Reitz (2001).

In her critical feminist analysis of the marginalization of immigrant women engineers, Bonnie Slade (2003) details the significant barriers immigrant women engineers face when entering the traditionally male-dominated occupation in Canada, first as
immigrants, and then as women. Slade argues that the situation of racialized immigrant women engineers exposes the interactive process of gender and race in professional engineering in Canada. She also suggests that the lack of literature addressing the issues faced by internationally-trained female engineers highlights their marginalized status in Canadian society.

In sum, there is an extensive literature produced by community organizations, the government, and academia addressing the issues immigrant engineers face; however, studies addressing the psychological impact of the licensing process on individual or the particular experiences of immigrant engineers from the former Soviet Union and Russia are lacking. This study’s analysis of how they experience the PEO’s licensing process is especially committed to furthering our understanding of how culture, gender, and race relations are enacted in this re-credentialing process. Such an analysis unveils the inequalities embedded in the engineering licensing process and enables the generation of constructive feedback on how the process could be improved for the wider immigrant population who wish to resume professional practice in Ontario. Moreover, such an analysis brings attention to the specific issues faced by female immigrant engineers, especially those who are single mothers, and provides a basis for recommendations that might lead to a faster and more effective integration of these professionals into the Ontario’s labour market, while simultaneously addressing the continuing issue of women’s proportionally low level of participation in the engineering profession in Canada.

Self-Positionality and Limitations
I came to Canada in 1998 from St. Petersburg, Russia with a Master degree in Mechanical Engineering. Soon after my arrival I started working at a non-profit organization in Toronto where my job was to register new immigrants for English language classes. Through my conversations with the immigrants who I met in this job, I learned that there was a lack of employment support services in the Russian language. I shared with my clients what I knew about finding jobs in Canada, and I often called on their behalf to schedule an interview with an employer or I helped them prepare resumes. Without even knowing, I had become an advocate for immigrants who were struggling to find a job. I later decided to register for the Career and Work Counsellor Diploma program at George Brown College in Toronto, and soon after completing the program I was hired as an Employment Consultant. Since 2007 I have worked as a front line worker in this field.

By interacting with new immigrants daily, I saw how their lives had been affected by immigration in positive and negative ways; more often than not, the latter prevailed. Injustice, discrimination, and prejudice are everyday realities for many immigrants in Canada. As such, this thesis is a small addition to the work of those who are seeking equity and social justice for minority and marginalized populations such as immigrants in Canada. I recognize my privileged position as a Master degree in Education student and fully understand that the individuals who agreed to participate in my study contributed not only to my intellectual growth by also to my fortunes as an academic.

The limitation inherent in this study is that this is a topic which touches my soul. I often feel emotional recalling the participants’ stories of how their lives were profoundly and negatively affected by the policies and practices of the PEO. However, as the British novelist
Arnold Bennett once said, “There can be no knowledge without emotions. We may be aware of a truth, yet until we have felt its force, it is not ours. To the cognition of the brain must be added the experience of soul” (cited in Andrews, 2000, p.496).

**Overview of the Study**

This thesis consists of four chapters. The first chapter is dedicated to an examination of the history of the PEO, including the rationale for its creation and the organization’s objectives, policies, and procedures, as well as their evolution over time. Using the specific case of Russian immigrant engineers to focus its analysis, this chapter pays particular attention to the unbalanced nature of the PEO’s licensing process, with its emphasis on the acquisition of vaguely defined “soft skills” that immigrant engineers often find frustratingly elusive.

Chapter two discusses the effect of this unbalanced licensing process on Russian immigrant engineers’ identity. An analysis of the study participants’ responses through the lens of critical race theory and feminist theoretical perspectives helps to illuminate the profound identity crisis that some applicants experience as a result of their involvement in the re-credentialing process. The chapter focuses on how historical and political developments in Russia before and after the collapse of the USSR have shaped Russian national consciousness and racial identity and how Russian immigrant perceptions of Canada as a country sharing in the racial whiteness and Eurocentric orientation of the Russian professional class come
together to produce a profound confusion when these newcomers find that they are no longer able to access the privileged status associated with whiteness or professional status.

Chapter three is dedicated to the additional issues that female Russian immigrant engineers must cope with when attempting to reenter the profession in Canada. The attitudinal differences in how men and women experience the re-credentialing process are explained using a textual frequency analysis of the participant interviews. The main focus of this chapter is the particularly difficult situation in which female immigrant engineers who are also single mothers find themselves as they pursue the PEO’s licensing process. This chapter highlights their disadvantaged position and argues that they endure the greatest psychological impacts as a result.

The last and concluding chapter provides suggestions for minimizing the negative effects of the PEO’s licensing process. This chapter highlights the urgent need to democratize the licensing process via public discussions and consultations.

CHAPTER ONE: RUSSIAN ENGINEERS AND THE PEO’S HISTORY

The Creation of the PEO

The Professional Engineering Act of 1937 created the Professional Engineers of Ontario (PEO) as a self-governing association and conferred on its members the exclusive right to practice professional engineering in Ontario and the use of the title “P.Eng.” or “professional engineer” (Hamilton, 2002). The Professional Engineering Act gives the PEO the authority to develop regulations for admission to the profession, including instituting certain academic training, work experience requirements, and standards of professional practice, such as the establishment and enforcement of a code of ethics (PEO, no date).
This section of this thesis offers a brief definition of the concepts “regulatory body” and “statutory closure of the profession,” necessary to a full understanding of how the PEO’s practices and polices affect the applicants for the P.Eng. license. It continues with a historical overview of the PEO’s creation. Citations from early engineering periodical publications are examined in order to uncover reasons commonly used to support the regulation of the engineering labour market and the need to control access to the occupation by “outsiders” such as foreign-trained engineers. The chapter further discusses how Canadian engineers have continued to rationalize the need for the profession’s regulation in Ontario, and in particular, how this drive toward occupational closure was linked to the notions of public safety and professional standards.

Understanding the motives behind the PEO’s creation sheds light on the fundamental reasons for the regulation of the engineering profession in Ontario. This in turn allows us not only to identify the primary beneficiaries of the PEO’s polices and practices, but to critically analyze how the PEO’s licensing process specifically affects immigrant engineers from the former Soviet Union and Russia. Russian engineers who immigrate to Canada soon realize that their expertise and knowledge is presumed deficient, needy, and inferior compared to that of Canadian engineers, and hence subject to stringent regulation and testing. In the second half of this chapter I will demonstrate how arguments that Russian engineers lack the necessary local knowledge or “soft skills” to function in Canada are especially inappropriate in light of their unimpeachable technical qualifications, and are in fact more a reflection of the profession’s protectionist tactics and a more general prejudice against Russians generated by the Canadian mass media.
**Definition of Key Terms**

In Canada a regulatory body is a group of individuals with a common professional interest who are registered under the Companies Act. The state approval of the regulatory body guarantees the right of members to use a particular title and specifies the occupational services they provide. The state’s approval of the regulatory body also guarantees its legal monopoly. This means that only those who are registered can provide these services to the public. In addition, the regulatory body applies credentialist tactics to regulate access to the occupation. For example, the use of educational certifications and accreditation restricts and monitors access to occupational positions (Witz, 1990).

The statutory closure of an occupation is therefore defined as the formation of an occupational monopoly which entails both the establishment of a legal monopoly and the use of credentialist tactics. Parkin (1979), in his analysis of the statutory closure of occupations, remarks that “the professions . . . generally seek to establish a legal monopoly” in order to promote the ascendance of its members towards the dominant class position. As Parkin writes: “the dominant class under capitalism can be thought of as those who possess or control productive capital and those who posses a legal monopoly of professional services” (cited in Macdonald, 1985 p.543). Statutory closure thus serves the socioeconomic interests of the profession in a fairly direct manner.

**History, Motives, and Rationales Underlying the PEO’s Creation**

It is well documented in the scholarly literature on the topic that the labour market situation in Canada at the beginning of the 19th century triggered public discussions around
the topic of the necessity of regulating the engineering profession. Furthermore, in Great Britain and the U.S., engineering and special technical interest groups were established in 1826 and 1856 respectively (Hart, 2001). As a result of these developments, Canadian engineers began promoting and establishing their own national engineering interest group (Hart, 2001). It is worth noting however that the British North America Act of 1867, which created a Dominion of Canada, gave provincial governments legislative responsibility for education (Department of Justice n.d., section 93). At that time, professional associations were considered educational bodies because they were comprised of the members of learned societies. Consequently, the associations of professional engineers that were established after Confederation, even when national in scope, have been under provincial jurisdiction ever thereafter (Hamilton, 2001).

The Canadian Society of Civil Engineers (CSCE) was established in Montreal and obtained its charter as a learned professional society in June of 1887 (Hart, 1997). The CSCE grew very quickly and by World War I consisted of eight chapters across the country, with a total of over 3000 members (EIC, 1927). As the engineering profession grew over time it developed into a number of separate disciplines. This development, coupled with the intention of remaining the representative body for the engineering profession as a whole, led to the CSCE’s name change in 1918 to the Engineering Institute of Canada (EIC), in order to include mechanical and electrical engineers in addition to civil engineers, who represented by far the largest cohort of engineers at the time (Hart, 2001).

World War I had a significant impact on shaping the future of the professional associations’ policies and regulations due to the widespread post-war unemployment that was
exacerbated by the swift demobilization of many soldiers and servicemen (Knowles, 2000). At that time, many civic projects such as canals and transnational railroads were already completed, and therefore demand for civic engineers was in decline. During this period of declining demand, many returning soldiers enrolled and graduated from engineering programs in Canadian universities (Millard 1988; Morris 1990), leading to the saturation of the engineering market in Canada. In addition, the immigration levels before and after World War I brought many engineers from other countries to Canada, “which contributed to uneasiness among Canadian engineers about competition from abroad” (Girard& Bauder, 2007, p. 235).

The years between 1910 and 1914 saw the highest intake of immigrants in Canadian history, as over 1.5 million immigrants arrived in Canada during this period (Citizenship and Immigration Canada). This wave included an influx of foreign-educated engineers, mostly from Great Britain and the U.S. (Millard, 1988). During this period, yet prior to the statutory closure of the engineering profession, there was also considerable discussion in engineering periodicals regarding the profession’s status and the earnings of engineers. One of the narratives noticeable in these discussions suggests that the disappointing labour market conditions experienced by Canadian engineers were the product of competition from a large number of non-Canadian practitioners working in Canada (Girard& Bauder, 2007, p. 235). As Knowles (2000) puts it, the perception of foreign-trained engineers as a threat to the livelihood of Canadian-educated engineers coincided with a period of rising Canadian nationalism. The following example drawn from a letter written by a Canadian-born engineer illustrates the trends that characterized the discussion at that time:

We are told that in Canada there are ten or twelve colleges grinding out young engineers, presumably for employment in this country. In
addition to this we have a number of young men entering the work without technical training: and also an influx of foreign engineers, draughtsmen, etc. Decidedly we are suffering from over production . . . according to the law of supply and demand it means lower salaries, which have for some time been declining (Hagarty, 1909, p.468, cited in Girard & Bauder, 2007).

Many members of the EIC subsequently suggested that a possible solution to the hardships of low income, harsh working conditions, and a limited labour market would be a reinforcement of the restrictions to access to the profession. To protect their market, EIC members from Ontario demanded that their profession be regulated based on the following argument:

The province of Ontario is without proper legislation for the protection of its qualified engineers, at the present time, while other provinces and the United States have such protection. One result of this was that while Ontario engineers were barred from practicing outside the province, the engineers from outside could at present, practice in Ontario without restrictions and in competition with its own engineers (London Branch of the EIC 1932, 46, cited in Girard & Bauder, 2007).

Similar discussions further prompted the EIC to establish an Advisory Committee, which drafted a standardized licensing bill, in order to protect the interests of Canadian engineers, especially the younger and less prosperous ones, and to create provincial self-governing engineering regulatory associations (Professional Organizations Committee, 1978), therefore making access to the engineering occupation a legalized monopoly.

The Professional Engineers Act was passed in the provincial legislature in 1922, creating the Association of Professional Engineers of Ontario (APEO, later known as PEO). This 1922 Act was opposed by Ontario’s mining engineers, who had formed a separate professional association known as the Canadian Mining Institute (CMI) in 1889, in reaction to the prospect of being forced to join the EIC in order to practice (Millard, 1988). Mine owners
also felt that it would restrict their choice of employee, and discourage foreign investment because foreign technical staff would be barred from practicing in Ontario (Hamilton, 2001).

Despite the fact that the PEO sought to promote its members’ right to a regulated labour market, it is important to note that even back in the 1920’s, there were some Canadian engineers who opposed licensing legislation. Those engineers in opposition felt that licensing legislation represented a significant threat to the status of engineering as a profession. A letter to the editor of the *Journal of the Engineering Institute of Canada* R.W. MacIntyre (1919) explained how the engineering profession’s closure could undermine the status of the profession in the eyes of public:

> I am absolutely opposed to any “closed shop” legislation. Such legislations embrace the worst feature of Trade Unionism and stands for a vicious principle, which is bound to react on the dignity and standing of our profession in Canada . . . The spirit of the present age is decidedly against special privileges for any class of men . . . If an engineer cannot stand competition on his own feet in competition with brother members of the profession, we certainly have no right to bolster him up by the Act of Parliament and drag our profession down by so doing (Macintyre 1919, 226-227 as cited in Girard& Bauder, 2007).

In addition, a number of Ontario’s universities were concerned that the Act would allow the new regulatory body to control university engineering education through its power to recognize degrees and control admission standards (Millard, 1988). As a result of this opposition, it was not until 1937 that an amendment to the Professional Engineers Act effectively closed the profession in Ontario (Hamilton, 2002).

Prior to the regulation of the profession in 1937, a Canadian engineering periodical characterized foreign engineers as “The Foreign Invasion” (James, 1910). After World War I, a
number of editorials suggested that the country was producing enough engineering talent to satisfy domestic demand (Young, 1918). For example:

At the present the prospects in Canada for the employment of engineers from other countries are not favorable, since the supply of our own men is just now, more than adequate to meet the demand . . . Employers naturally take the very reasonable view that in such opportunities as do occur, preference should be given to our own men (Durley, 1930, 523 cited in Girard & Bauder, 2007).

To justify the regulation of the profession one commentator explained:

The closely united organizations possessed by lawyers and doctors, wherein they receive special privileges, are justified on one basis only, that is, the protection of public . . . The same thing applies to the engineering profession (Peters 1918, 220 cited in Girard & Bauder, 2007).

These debates illustrate how the perceived “needs” of the Canadian public—in particular, public safety—and those of the engineering profession are depicted as intersecting in order to justify protectionist tactics. They also highlight the fact that, even in a climate of anti-monopolistic imperialism, there will be parties very much interested in the occupational closure in order to preserve their dominant social position.

The Impact of Occupational Closure on Immigrant Engineers: The Specific Case of Russian Engineers in Ontario

As the previous section demonstrated, since World War I, and particularly when the immigration rate was high, competition in the engineering market has most often been attributed to the presence of foreign engineers in Canada. Historically, the movement toward statutory closure was often rationalized by an appeal to the threat represented by immigrant engineers, who thus may have played an unwitting role in the eventual formation of regulatory
bodies like the PEO. But the emergence of such regulatory bodies also took shape in terms that would be make it extremely difficult for immigrant engineers to enter the profession in Canada. As we shall see in this second half of this chapter, protectionist measures would come to be justified by appeals to common standards, in the interest of public safety and professionalism. Interestingly, at least two prominent themes can be discerned in the arguments used to rationalize the regulation of the profession in the engineering literature from the early 1920’s onward. First there is the notion that foreign engineers lack the in-depth knowledge of the unique Canadian environmental conditions necessary for them to function effectively in Canada. Second is the idea that foreign engineers lack proficiency in the non-technical conventions and practices also known as “soft skills.” These “soft skills,” according to the PEO, include managerial skills, communication skills, and an understanding of the social implications of engineering, specifically the relationship between engineering activity and the public at large (Girard & Bauder, 2007, p.46).

For this reason the next part of this chapter provides an analysis of arguments regarding the “uniqueness” of the Canadian climate followed by a discussion of why this argument is often not applicable to the engineers from the former Soviet Union and Russia. I will also examine how and why the appeal to “soft skills,” so vaguely defined and therefore effective at screening out immigrant engineers with limited access to Canadian professional networks, is used by regulatory bodies such as the PEO to achieve the desired result of controlling access to the occupation. Finally, I will explore how negative media representations has an impact on the credentialing process for Russian engineers, exacerbating
the more general perception that as immigrants they lack the soft skills necessary to be a “good fit” within the Canadian engineering profession.

**Technical skills of Russian Engineers and the Canadian Climate**

Water flows according to the same laws in all countries. But there are differences in the application of engineering science according to the stage of development of the country and its topography and climate . . . an engineer brought up on work having a high class finish, as in Europe, or near the eastern coast of America would not be the best engineer for pioneer work in the [Canadian] west (Hering 1913, 44-45 cited in Girard & Bauder, 2007).

The above citation is from a letter to the editor of the *Contract Record & Engineering Review* in which a reader emphasizes how unique topography and climate conditions of Canada limit the pool of qualified engineers. As Girard and Bauder’s (2007) research on the justifications employed by Canadian engineering societies to establish institutional qualifications standards indicates, such standards most often represent a strategic effort on the part of the membership to protect their professional, social, and economic interests by excluding non-members and foreign engineers. These authors argue that these exclusionary practices, in place since the establishment of these associations in 1920-30s, remain a part of the professional regulatory framework that is still in place today. It is thus that an argument which started almost one hundred years ago—the idea that foreign-trained engineers lack a necessary knowledge of the unique conditions created by the Canadian climate—has since paved the road to the exclusion of the foreign-trained professionals.
The specific argument that foreign engineers do not know how to work in a Canadian climate is in fact an excellent example of how thinly-veiled prejudice is often disguised as a safety concern (Girard & Bauder, 2007). This insistence on the uniqueness of the Canadian environment and its strategic linkage to the idea of public safety seems to be contradiction to the well-known fact that engineering knowledge is universal because it is based on principals of mathematics, physics, and other sciences. Indeed it is a common understanding that the engineering, technical, and scientific occupations are presumably the most convertible between various national contexts, being ‘culturally’ neutral and based on verifiable knowledge and skills (Remmenick, 2003). Moreover, in the case of engineers educated in the former Soviet Union and Russia, these criteria or requirements for familiarity with Canadian work conditions are challenged by the fact that Russia is geographically located in the temperate belt and most of the country lies within the same latitudes as Canada. This means that engineers who were trained in the former Soviet Union are in fact especially well-suited to work in the rather similar environmental conditions found in Canada; indeed, there are no environmental variations in Canada that are greater than those found in the former USSR. In addition, the numerous international projects led by the Soviet and then Russian engineers indicates that the professional knowledge of this group of engineers is universal and enriched by international experiences. According to the Canadian organized engineers’ own logic, Russian engineers’ environmental knowledge might exceed that of Canadian-trained professionals.
In fact the reputable and internationally-acclaimed scientist Evgeny Velikhov points out that the universality of Soviet technical specialists’s skills was achieved through curricula design:

The curricula of junior academic years at all technical universities included the fundamentals of higher mathematics and general physics on which the basic and specialized engineering discipline relied. Therefore, Soviet technical universities, regardless of their specialization, trained in fact, multifunctional specialists able to adapt to working in any technical field (Velikhov & Betelin, 2008, p.258).

For this reason, a brief historical overview of the engineering sciences in Russia follows here, in order to provide a more complete picture of the educational and technical background of Russian immigrant engineers.

**A Brief History of the Engineering Sciences in Russia**

Soviet and Russian engineers’ inventions and discoveries are numerous. Innovations credited to Russian engineers include arc welding (Nikolay Benardos), the knapsack parachute (Gleb Kotelnikov), and the pressure suit (Eygeniy Chertovskiy). Alexander Lodygin and Pavel Yablochkov were pioneers of electric lighting, while Mikhail Dolivo-Dobrovolsky introduced the three-phase electric power systems widely used today. Sergei Lebedev invented the first commercially viable and mass-produced type of synthetic rubber. More recently, Russian engineers have designed and implemented international space projects, pipelines, and international nuclear power generation stations. From the scale of these inventions and projects it should be clear that the Russian educational system is rather effective at nurturing the talent necessary produce such significant achievements in the field of engineering.
In fact, several publications discussing the early history of the engineering sciences in Russia highlight the quality and high standards of Russian engineering education. For example, the scientists E.P. Velikhov and V.B. Betelin (2008) write:

The creators of the engineering school and education system in Russia were the world-know scientists Krylov, Zhukovskii, Timishenko, A.A. Severskii and A.M. Nikol’skii. The authority of the Russian engineering training system was so high that in the late 19th century, the President of Boston University studied the system of engineering training at the Imperial High Technical School (now Bauman State Technical University, Moscow) an applied it first to his university and then to other educational institutions of the United States (p.257).

Moreover, during the Soviet era, after the launch of the Earth’s first artificial sputnik, Timoshenko, who was considered the father of modern American mechanics, visited the Bauman Technical School in Moscow in 1959. There he noted that “the level of engineering training at this institution was considerably higher than the American experts had estimated” (Velikhov & Betelin, 2008, p. 258).

More recently, even after the Russian Federation experienced a transformation of its political and educational systems, educational standards and the quality of educated professionals in science, and especially in engineering, are both still high. For example, the majority of international space projects in the last two decades were developed and implemented under the leadership of Russian engineers. Russian engineering scientists can be found teaching in universities all around the globe. Additionally, the most recent achievement of Russian engineering science is the Arctic Drilling project, which was led by Russian engineers in collaboration with Norwegian and Swedish teams.
Soft Skills: The PEO’s Strategic Ambiguity

As demonstrated above, engineers trained in the former Soviet Union and Russia are very well educated and often lead complex engineering international projects. But the PEO nonetheless requires individuals who are Russian engineering diplomas holders to take numerous examinations in order to prove their technical knowledge. Coming from a strong educational background, many Russian engineers do not find it difficult to pass such technical examinations. For many of them the greater obstacle standing in the way of obtaining their license lies in the “soft skills” dimension of the occupation. Sergei, one of the study participants noted:

At work, one of the P.Engs designed the pipe which will be used for waste water. I knew, just by looking at the project that it is not going to work, but he is licensed engineer, so nobody said a word. The company built the system and of course it didn’t work properly. The company just lost money, what can I say. These Canadians may be licensed but because I am not “Canadian” with all their manners or how they call it soft skills, I have to learn it as it is more important than designing effective projects (Sergey, February, 2012).

The “soft skills” argument has been as used by organized Canadian engineers to rationalize occupational closure since the time the regulatory bodies were first created. Because foreign-trained engineers are perceived as lacking these skills, it is important to take a moment to discuss in detail what exactly the “soft skills” of the engineering occupation are and what effect their presence of lack thereof has on immigrant engineers. Bourdieu’s concept of *habitus* is particularly useful to uncover what is behind these “soft skills,” also known in a common language as being “the right fit” for the profession.

According to Bordieu (1984), the ability to gain membership and/or status in a social group depends on an individual’s ability to understand and perform according to this
group’s habitual rules and ordering principles: in other words, the group’s *habitus*. Bourdieu defines *habitus* as “a system of internalized structures, schemes of perception, conception and action common to all members of the same group or class constituting the precondition for all objectification and perception” (1976 p. 86). He emphasizes that specific social groups and classes each share a distinct habitus, further suggesting that many professions (he cites doctors, architects and engineers as examples) maintain an underlying set of criteria, beyond formal credentials, which regulate access to each profession (1984). These characteristics function as “tacit requirements, such as age, sex, social or ethnic origin, overtly or implicitly guiding co-option choices . . . so that members of the corps who lack these traits are excluded or marginalized” (Bourdieu 1984:103).

For many immigrants understanding these unspoken rules and behavioral patterns is often difficult for a number of reasons. First, being an immigrant often limits one’s access to the professional network where appropriate “soft skills” can be observed and learned. Second, the PEO’s requirements for the possession of professional standards and skills such as professional ethics, project management, presentation skills, and teamwork, are not clearly defined and depend upon the internalization of a *habitus* that is especially elusive for newcomers to Canada. Proficiency in such areas depends upon mastery of many culturally-specific elements such as the English language, customary modes of address and interaction, and so forth. This strategic ambiguity provides space for the PEO and Canadian employers to change and modify this dimension at any given time. In short, as Hanlon (1998) puts it, “these processes of inclusion and exclusion depend on the affirmation and valorization of some characteristics to identify the qualified professionals, and on the devaluation of other
characteristics as the signifiers of incompetence” (p. 47). The study participants were all aware of how the “soft skills” requirement negatively affected their prospects for employment in Canada. Olga, a participant in this study with a Master’s Degree in Electrical Engineering, said the following about her job search experience in Canada:

Sometimes I feel like a second class person in Canada, especially when I was looking for a job. I know that because I have an accent and I am not a man I have to prove more to them [employers]. All of these managers are Canadian men and of course they prefer to hire a native speaker man especially for engineering. I feel that if there are no suitable men for the position then it is my chance to be selected, but it is so rare . . . (Olga, April 2012).

From my own work experience as an employment specialist at a non-for-profit organization, I recall a significant number of questions coming from internationally-trained professionals regarding the appropriate soft skills for their profession in Canada, starting with what the term “soft skills” even means and ending with how and where they could learn these skills. Many immigrant clients acknowledge that “soft skills” is a vague category that they find difficult to understand and learn. Bourdieu explains:

The schemes of the habitus . . . function below the level of consciousness and language, beyond the reach of introspective scrutiny or control by the will . . . [They] engage the most fundamental principles of construction and evaluation of the social world, those which most directly express the division of labour . . . or the division of the work of domination (Bourdieu 1984, p. 466).

In other words, if immigrants do not “fit” culturally into the dominant image of what it means to be an engineer in Canada they might have a difficult time obtaining the license or even be denied it, regardless of their level of technical skill.

From accounts of their life experiences and numerous scholarly publications we know that newcomers’ adjustment to a new culture in Canada is a complex, often stressful,
and lengthy process. It appears that this characteristic of the settlement process is used by the regulatory body to regulate access to the labour market for immigrants. In order to be licensed, immigrant engineers are required to internalize the values, beliefs and ways of thinking common to Canadian engineers—a *habitus* that has been developing since the beginning of the 19th century—within a very short period of time, such as the 33 hour of the Ethics and Law examination preparation course by the OSPE (OSPE website, January, 2013)! In other words, immigrant engineers have to assimilate into the professional culture in order to be able to access it, all in short order and while under the considerable stress of immigration and settlement in a new country.

Similar conclusions can be found in Girard and Bauder’s work (2007). In their study of the PEO’s licensing process, the authors interviewed one of the PEO’s officials, who stated that professional ethics, as they are conceptualized by the PEO, are difficult for immigrants to internalize. From that interview the authors infer:

> Until candidates internalize the habitus of the engineering profession in the form of Canada-specific professional practices and “ethics”, they will not be licensed as a professional engineer regardless of how well they understand and can apply the scientific principles of engineering (p.47).

That soft skills might prevail over technical skills as the criteria for in determining one’s fitness to practice as an engineer is not entirely surprising. This contradiction highlights the main reasons for PEO’s existence: control and regulation of the engineering labour market in Ontario. As the present economic situation of austerity and crisis in Ontario dictates, the PEO’s members’ interests, such as salaries and working conditions need to be protected. It also allows local employers to benefit from the availability of cheap, highly skilled labour.
For example, one of the study participants, Olga, with her Master’s degree and several publications and academic conference presentations on her resume, was employed as a technician and paid $13 dollars per hour in her first Canadian job. When I asked Olga how she felt about the fact that she had to work for $13 per hour, she answered:

You know, I was actually happy that I got this job because there were no other jobs available. I didn’t want to go and work in a warehouse or a retail store. I would lose all my skills there. Plus I didn’t have any other offers even though I applied to better [more appropriate to her level of skills and knowledge] positions. What can we do, we are in Canada we do what we have to do. We start from the beginning. You know, when at home [in her country of origin] you don’t have any jobs, this job even at the entry level seems a blessing. But I see it just as the start and I plan to move on (Olga, April 2012).

In this way, while immigrant engineers are working hard to reclaim their profession and right to practice in Canada, local employers are saving millions of dollars by hiring skilled labour for the price of unskilled labour. The lengthy licensing process makes these savings stretch for years while simultaneously deskilling immigrants. Consequently, it is not surprising that many of the study’s participants described the beginning of their professional careers in Canada, especially the first five years, as “stressful” “depressing,” and a “difficult time” in their lives.

Thus despite evidence of the internationally-proved competence of Russian engineers and in the absence of empirical evidence that these engineers lack non-technical skills such as professional ethics, teamwork or presentation skills, the PEO still does not extend the same recognition of Russian credentials that it does to engineers trained in many Western countries. In the final section of this chapter I will suggest that the root of this
exclusion lies in the image of Russia and Russians shaped by Western and, in particular, the
Canadian media, for the past fifty years.

**Media Representations of Russia and the Effects on Professional Credentialing**

Media representations of the Soviet Union and its people, generated during the Cold War, could not fail to leave a mark on the social image of this group of immigrants. Parenti (1993), who conducted research on images of the Soviet Union, contends that for decades, “coincident with the view enunciated by U.S. leaders, the press portrayed the communist nations of the Eastern Europe and the Soviet Union as immutable and totalitarian, wielding, an all-permeating, monolithic power over their hapless citizens” (p.129). For the duration of the Cold War the Canadian and U.S. press described Russians with stereotypical pronouncements, describing them as “unsmiling”, “rude”, and “unable to look them [Russian people] in the eye” (Parenti, 1993, p. 189.). Parenti cites numerous sources and examples of such image construction: “In 1991, at the time of a dramatic transition within Soviet Union, the *New York Times* noted that the post-communist reformers faced ‘the mammoth task of civilizing their country,’ suggesting that the Soviet Union had never known civilization in the Western sense of the word” (p.190).

More recently—in 2012 alone—*The Globe and Mail*, a nationally distributed Canadian newspaper with more than 1 million weekly readers, published 4941 articles in which Russia is mentioned. A narrowed search for articles on corruption in Russia produces 210 results. The vast majority of these articles focus on corruption in the Russian government and the authoritarian style of the Russian president, as well as portraying Russians as a people
unable to change their own maladaptive social order. Overall the Canadian media tends to focus on problems within the Russian society, and even technological achievements are often presented in a negative light rather than as significant scientific progress; see, for example, discussions around the Russian Arctic Drilling project (Canadian Broadcasting Corporation, 2012).

The way such events are presented in the Canadian media reveals that perhaps the legacy of negative stereotypes originating in the Cold War remains very much in the present. When the Canadian press and electronic media so often depict education in Russia as prone to the corruption plaguing Russian politics and portrays the Russian people as intrinsically aggressive, dishonest, and given to undemocratic practices, educational authorities in Canada and the public at large may come to perceive Russian credentials as somewhat suspect. Such representations in the media often are an additional burden for Russians in Canada who seek high level professional jobs such as engineering positions, as the Canadian media portrait of Russians stands in vivid contrast to the widely accepted image of Canadian engineers, who are mostly white Canadian-born males. In the case of engineers from the former Soviet Union, it appears that an additional unspoken rationale for applying the highly restrictive licensing process is the perception that not only are credentials from the former Soviet Union and Russia not trustworthy, but that the “character” of people themselves is not a “good fit” with the professional ethos of Canadian engineering.

In sum, immigrant engineers from the former Soviet Union and Russia come to Canada with rich educational and scientific engineering backgrounds. In Canada, however, they are confronted with the unpleasant reality that their technical and non-technical skills,
diplomas, and work experience, are often perceived as deficient or invalid by the local regulatory body and employers. Consequently, many immigrant engineers cannot continue to practice their profession and have to find alternative ways to earn income. These circumstances affect these individuals and their families in a number of ways which will be described in detail in later chapters. Many of them question their decision to immigrate and consider returning back home or going to the United States; some are forced to take low skilled jobs, often outside of the field of engineering; a few of them persist and begin the PEO’s licensing process. Regardless of the route they chose, all of the study’s participants reported experiencing significant psychological stress, which is the subject of the next two chapters. This stress is related to crises of identity, emotional and cognitive confusion, and a sense of precariousness and loneliness caused or exacerbated by their experiences of the credentialing process in Ontario.

CHAPTER TWO: RUSSIAN WHITENESS AND IDENTITY CRISIS

This chapter analyzes the narratives of the study’s participants—white, highly educated immigrants from the former Soviet Union—through the lens of Critical Race theory, in order to illustrate how identities attached to racial whiteness are challenged by the PEO’s licensing process. This chapter also discusses how ethnic Russian immigrants reclaim their whiteness by striving to adapt to what they perceive as the “Canadian” form of whiteness practiced by the dominant class. For the sake of clarity, I should specify here that in this study I define white immigrants from the former Soviet Union as ethnic Russian immigrants.
Basic Tenets of Critical Race Theory

To analyze the experiences of ethnic Russian immigrants in Canada, I find it useful to apply Critical Race Theory to the findings of my study. Critical Race Theory (CRT) emerged during the 1980s, when a group of legal scholars of color in the United States began to critique the role of the law in maintaining unequal race relations, and in particular, “the silence about race in Critical Legal Studies, and the intransigence of racism following the Civic Rights Movement” (Sleeter, 2012, p.423). I also use critical whiteness studies theory, which foregrounds the invisibility of whites’ racial power, the social privileges associated with whiteness and the interpretations of race and ethnicity through which people of European descent minimize the significance of their own race (McDermott and Sampson, 2005). Whiteness, according to Frankenberg, can be explained as “a set of locations that are historically, socially, politically and culturally produced” (1993, p.6). In accordance with this established body of critical literature, this study will define whiteness as a three-dimensional concept: first, as a socially constructed relationship between people categorized by race, where those who are white hold collective power and control over economic resources; second, as a construct in which whites’ power and their oppressive behavior are invisible for them, and privileges they have are taken for granted; third, as a construct in which European immigrants become whites when they accept this way of life as normal. Most importantly, critical whiteness theory uncovers racial power and makes the ideology of white supremacy visible to whites, while working against the normalization of racial oppression in a way that takes it into account rather than dismissing it (Leonardo, 2009).
In order to provide some context for how ethnic Russians construct their own whiteness, this chapter briefly outlines historical and political developments in Russia from its imperial period to its present state as a Russian Federation; this is followed by an analysis of how Russian identity has been formed during the Soviet era and later under the first two Russian presidents. I then embark on an examination of how this Russian identity is challenged and re-formed in Canada among Russian immigrant engineers, in relation to their experience of the engineering credentialing process.

**Whiteness and Racial Identity in Russia**

Geoffrey Hosking, in his history of imperial Russia, writes that “the building of empire impeded the formation of a nation” (1997, p.xix). He argues that ethnic Russians were encouraged to identify with the Russian empire as a whole rather than develop a national solidarity amongst themselves. Moreover, Peter the Great’s reforms connected a Westernized elite and the peasant mass, which also contributed to unity among the peoples of this multinational empire. Much later, after 1917, the communists proclaimed the new country of the Soviet Union as a multiethnic rather than a Russian state. As the Soviet Union continued to build itself based on the millenarian and egalitarian principals of communism, Soviet society became further integrated with the spread of education. Yet Russian identity also became synonymous with Soviet identity as a result of the prominence of Russia in the definition of the latter: “The use of Russian language, the dominance of ethnic Russians in the leadership and the sense of the defeat of Nazi Germany as a Russian national victory all encouraged
ethnic Russians to identify with USSR” (Duncan, 2005, p.283). As a result the essentially
Russian nature of Soviet identity went largely unmarked.

The USSR was a union of fifteen subnational Soviet republics, joined under a
highly centralized government and economy with its centre in Moscow. Moscow and St.
Petersburg were the two main metropolitan centers in the Soviet Union, with the majority of
the population consisting of ethnic Russians who identified themselves as members of “white
race.” Ethnic Russians composed just over half of the Soviet Union’s population in 1980 -
1990, and around one fifth of the Russian Federation’s people. Muslim nationalities such as
the Tatars, Bashkirs, Chechens, and other North Caucasian people accounted for around a
tenth of the population. While ethnic Russians are traditionally Orthodox Christians, the
Russian Federation state since 1997 has recognized Orthodox Christianity, Islam, Buddhism,
and Judaism as the traditional religions of Russia. It is also important to note that in the
Russian language there are two distinct words for Russian citizens: one for ethnic Russians
(russki), and another for a citizen of the Russian Federation (rossianin) who may be of any
ethnicity (Simonsen, 2002, pp.33-50). This distinction is analogous to that between Canadians
born in this country and Canadians born and raised elsewhere. The main purpose of the
distinction is to draw a clear line between “us”, the ethnic Russians, and all the “others” who
live in the Russian Federation. This purposeful demarcation in turn serves as a passcode for
identity and therefore for privileges one can claim in a particular context.

During the Soviet era, Russian identity was also shaped by its relation to the West.
Many generations of Russians were taught that “the West” was a manifestation of capitalist
exploitation, moral decadence, and US dominance. But some Russians viewed “the West” in a
different light. For example, Russians who had knowledge of the English language and could access radio stations that were prohibited in the Soviet Union (such as the BBC) believed that “the West” was a symbol of progress, democracy, and civil society. Those “Westernizers” also saw the Soviet Union as a country linked with empire, despotism, and autocracy. But Soviet Union patriots would argue that only because of these particular features of the Soviet Union was the victory over the Nazis possible, as well as a creation of a strong state, marked by unity and order within huge territorial boundaries.

The identity of this generation of people to whom I, and the majority of the immigrants from the former Soviet Union and Russia, belong emerged in the atmosphere of these constant debates. As a Soviet people, we were told by public institutions and the media that we were the best and most unique in the world; the ideology of “us” versus “them” was dominant then. The Soviet Union proclaimed itself a country that valued equality and built upon Communism’s egalitarian principals to ensure equity and fairness for all. Ironically, many would agree that unspoken inequality was an everyday reality for many citizens of the USSR; indeed, racism and discrimination towards other ethnic groups was and still is a significant problem among ethnic Russians.

Racism in Russia appears mainly in the form of negative attitudes and actions taken by ethnic Russians towards people who are not considered ethnically Russian. Traditionally, this included anti-Semitism, as well as hostility towards the various ethnicities of the Caucasus and Central Asia. In contradiction to customary Western usage, in Russia the word Caucasian is a collective term referring to anyone descended from the native ethnicity of the Caucasus. In fact, in Russian slang, darker skinned Caucasian peoples fall into the
category of “black.” Attitudes towards African people were generally neutral during the Soviet Union, because of its internationalist agenda. As a part of its support of the decolonization of Africa, the Soviet Union offered free education for citizens of African countries. African students (as well as other foreign students) were placed in many institutions of higher education throughout the country, most famously the People’s Friendship University of Russia (then known as the Patrice Lumumba Peoples’ Friendship University). Yet a recent survey by the Moscow Protestant Chaplaincy found that over half of the Africans in Moscow had been physically attacked in the past. Attacks in the Moscow subway are common, and verbal insults are so frequent that students have ceased reporting them (Moscow Bureau for Human Rights, 2011).

Other visible minorities are associated with threats to the political and cultural integrity of the Russian Federation. Since the dissolution of the Soviet Union, the rise of the Muslim population in Russia, and the Second Chechen War, many Russian radical nationalists have associated Islam and Muslims with terrorism and domestic crimes. Finally, Russian attitudes towards the People’s Republic of China have focused on the fear that Russia, especially the Russian Far East and Siberia, might be overwhelmed by Chinese migrants because of China’s much larger population. Unsurprisingly, a survey conducted in 2010 by the Moscow Bureau for Human Rights stated that surveys show xenophobia and other racist expressions are prevalent among fifty percent of Russians (Moscow Bureau for Human Rights, 2010).

How Immigration to Canada Challenges Russian Racial Identities
In this way, several generations of Russians were socialized within an ideology resting upon nationalism, dominance, whiteness, and discriminatory practices toward people of almost every other skin color, overlaid with the legacy of a multiethnic, ostensibly egalitarian Soviet order. Despite the universalist overtones of the imperial Russian, and then Soviet ideology, in practice, white ethnic Russians commanded the economy and occupied all-important seats of power, enjoying privilege not available to non-Russians and non-white minorities. With the collapse of the Soviet Union, the loosening of immigration controls, and the overall unstable political situation in the Russian Federation that followed, a wave of immigration to the USA, Canada and Israel ensued. Many Russian immigrants chose Western countries as their primary destinations for immigration because they saw themselves as sharing in the Eurocentric civilization and racial whiteness of these societies. Interestingly, many of the ethnic Russians who immigrated to these countries were also supporters of the Western way of life and went with hopes for a better life and a future of financial prosperity.

For example, one participant in this study, Andrey recalled his expectation of a fairer system:

> When I started the immigration process to Canada, I thought that I will be finally free of the corrupted Russian system where you only get a good job if you know someone powerful. I thought that here [in Canada] it is a true competition based on skills and knowledge. I am confident about my knowledge. I designed and completed complex projects in Russia but was paid nothing [a very small amount of money]. But here [in Canada] I face even more troubles than at home [in Russia]. I need to be licensed, I need to speak without an accent, I need to learn customer service skills to be an engineer. It is hard (Andrey, January 2012).

Upon arrival in Canada such ethnic Russian immigrants like Andrey often think that they are ready to face challenges of a new life by bringing money, knowledge and skills with them; but
they are in fact unprepared to deal with the unique relationship of their whiteness to North American whiteness.

A stripping of identity occurs with immigration for all newcomers; however, the loss of privilege associated with their racial identity is particularly baffling to Russian immigrants. In part, they are unprepared to deal with the “unmarked” nature of class difference in North America, which is not as overtly racialized as in Russia and the former USSR (even though, in reality, it is very much associated with racial privilege). According to Alba, “Anglo-Saxon Protestants in the US created a national narrative of progress and individual opportunity, explaining social stratification by presumed evolutionary racial and ethnic differences, but omitting racism and class from the narrative’s vocabulary” (cited in Sleeter, 2012, p.422). Russian immigrants are acculturated in a Canadian society whose multiculturalism is undercut by the distribution of wealth along racial lines; these immigrants also observe racialization and discrimination in Canada that has been documented and analyzed by academics and mass media alike (Goddard, 2009; Moodley, 2005; Reitz and Banerjee, 2007; Ruparelia, 2012; Toronto Police, 2010). Yet this conflict between an ostensible equality and the presence of social formations that privilege whiteness is nothing new for this particular group of immigrants; it is their disqualification from that privileged white identity by their membership in the overriding category of “immigrant” that they find inexplicable. The nominal equivalence of all immigrants particularly bewilders them, as they find themselves positioned on the social margins of Canadian society with nonwhite immigrants rather than at the center with the dominant white class with whom they identified.
when they first dreamt of a better life in the West. As one of the participants, Andrey expressed it: “We are all blacks for Canadians” (January, 2012).

One notable manifestation of this formal equivalence of all immigrants to Canada can be found in the engineering credentialing process: the PEO applies the same licensing requirements to all applicants from foreign countries. Yet practices of racism and racialization in the broader social and cultural Canadian contexts fuel Russian immigrant perceptions and expectations for the privileges afforded to whiteness in their new country, including their own professional and social upward mobility. These expectations are highly visible in the study participants’ responses. For example, one participant described his frustration with the re-credentialing process in the following terms:

They [the PEO] should assess credentials from different countries differently. Why is it that my credentials from the leading engineering university in Moscow should be assessed the same as those from Pakistan or India? We study more [for longer], our projects are different too. They [people from Pakistan and India] come to study at our universities. But here [in Canada] we are the same. It is not making any sense (Andrey, January 2012).

That Andrey chose to emphasize not simply the integrity of Russian educational and professional credentials but their superiority to those of nonwhite engineers is telling. Similarly, Olga’s critique of the licensing process begins with a focus on the absurdity of treating established professionals the same as engineering students, but then expands into a discussion of the PEO’s treatment of all foreign credentials as equal:

I sit in front of the commission [the PEO assessment committee] they are not even interested in my publications, in my work, they want me to tell them formulas, of course I don’t remember these formulas, I use books when I need them. They [the PEO] tell me that I need to pass examinations before I get licensed, why? Look at my project and if you understand the engineering you will see that they are complex.
Anyway I don’t feel it is fair to put on me the same requirements as on for other immigrants who didn’t participate in such projects as I have (Olga, April 2012).

It is in this manner that the PEO’s licensing process challenges the identity of ethnic Russian immigrants along racial lines. These immigrants identify themselves as white, yet the process treats them as other immigrants also members of visible minorities, many of whom coming from countries deemed “a third world.” This perceived contradiction contributes to the identity crises observed among the Russian immigrant engineers who are also applicants for licensing in Ontario. Yet no services or programs are provided either by the regulatory body or newcomer agencies in the province to deal with race relations in Canada, to address racialization practices, and to begin fostering the multicultural society at the entry points to Canadian society for both immigrants and natives.

In the absence of any such support, for many ethnic Russian immigrant professionals, tapping into whiteness and anchoring their identity within the supremacy of white Canadians become an ultimate goal. Ethnic Russian immigrants use their skin color as a “pigmented passport” to enter into white supremacy by gradually integrating into their own behavior and customs aspects of what they perceive to be a “white Canadian way of life.” The remarks of Olga, one of the study’s participants, clearly expresses the racial aspect of this deliberate identification with the dominant class:

I don’t want to live in Scarborough or Mississauga, I want to live in the centre of Toronto, where there are better schools for my child, where there are nicer people. How I can become friends with Chinese or Indians or others? They don’t understand me, my values, we are simply different. I want a normal life in a safe neighborhood (Olga, April 2012).
Overland (2004) argues that distinctions among individual European ethnic identities decreased as European Americans forcibly displaced immigrants of color, thereby demarcating themselves as different from and superior to those whom they displacing. Although Remenick (2006) has documented the persistence of a transnational identity among Russian immigrants in Toronto who fail to find common ground with Canadian mainstream society, a transition from an ethnic Russian identity to an “unmarked” white identity is evident in Olga’s remarks above on her desire for a “normal life.” Some Russian immigrant engineers find that they are able to relieve the stress associated with their status as immigrants if they assert their identification with mainstream white Canadian society. The emphasis on “soft skills” in the credentialing process and the impact of negative media stereotypes of Russians discussed in the previous chapter further encourage a flattening of their Russian identities in favour of a non-ethnic, white Canadian identity. In their first years after immigration, some refer to themselves as Russians. Those who are from Moscow or St. Petersburg would identify with the city they are from to emphasize their affiliation with the most Westernized and progressive part of Russia. But over time they no longer identify themselves with Russians or the local Russian community anymore; they come to identify themselves as white above all else, in order to distinguish themselves from all other immigrants living in Canada, especially immigrants of color. Interestingly, once they reclaim their white, ethnic Russian immigrant engineers no longer appear interested in critiquing the aspects of the existing social order such as immigration criteria or the PEO’s licensing process. In fact they embrace all the advantages their white skin color can give them in moving up the engineering career ladder in Canada. They come to recognize that the formal equality of the re-credentialing process to which they
strenuously objected masks the reality of race relations inside the engineering occupation in Canada, which privileges a Eurocentric whiteness. But for female Russian immigrant engineers, the transition is somewhat more complicated, for the challenge to their Russian identity affects not only their sense of their whiteness but their identity as independent, educated and professional women, which is rooted in a Soviet ideal.

The Intersection of Race and Gender in the Identities of Russian Engineers

From the study participants’ accounts it becomes clear that how the PEO’s licensing process challenges the racial identity of the Russian immigrant engineers is inflected by their gender identity. While both genders cope with challenges imposed on them by the regulatory body differently, it is interesting to note that women seems to be more eager and positive in their attitudes towards the process, whereas men tend to complain about the unfairness and long duration of the process. For example, Sergey, who was assigned ten examinations to complete, was very disappointed about the fact that he could not negotiate with the PEO:

I wanted to argue with them [the PEO] about the number of courses they prescribed for me to complete, and negotiate with them the time frame, which in my opinion was not realistic for someone who is working full time and has a family . . . Plus I am educated in Russia, they need to understand that it means that I know a lot (Sergey, February, 2012).

When asked about his overall experience of the PEO’s licensing process, Andrey, a male participant, replied with the following remark:
This [the PEO’s licensing process] is a time consuming, stressful and costs a lot of money process. Why do I need to do it? I know my stuff. The Russians are smart, and they know engineering (Andrey, January, 2012).

On another hand, the responses of female participants in the study were consistently more focused on the benefits that the PEO’s licensing conferred. For example, Marina stated:

You know, I am one of these people who don’t like to tell how difficult it [the PEO’s licensing process] was for me. I would rather keep it to myself. It is done and the case is closed. But of course it was an effort. I can see how and why “our” [immigrants from the former Soviet Union] would complain that Canadians are unfair and bad . . . But the P.Eng. license helped me to grow in my career, what else I can ask for? (Marina, January 2012).

The emphasis on stamina and perseverance underlying the women’s comments might be explained as an attempt to simultaneously escape from the immigrant category and return to their former status of white, educated professional women. For many ethnic Russian women the status of a white educated woman has been shaped by lives and works of famous Russian and Soviet women scientists such as Sofia Kovlevskaya, who was a mathematician, Natalia Bekhtereva, a neuroscientist and psychologist, Valentina Tereshkova, the first woman cosmonaut, and many other women who were leaders in many sectors of science and technology in the Soviet Union and Russia. These women scientists proved that mopping the floor, cleaning dishes and even raising children was not the only option in life for Russian women. The Russian and Soviet women scientists became a symbol of women’s intellectual power, determination, and independence for many generations of Russians. Gender equality in many occupations in the Soviet Union and Russia has been celebrated by the country’s leaders.
and by many ordinary Russians as the main achievement of the socialist and communist ideology.

Having said this, it is not surprising to hear from Olga the following:

I need to read books and to study; cleaning the house is not making me happy. I am an educated woman. Mopping the floor, cleaning dishes is not what I am trained to do (Olga, April 2012).

This statement highlights the double loss experienced by female Russian immigrant engineers such as Olga. Olga emphasizes that she is not “trained” for mopping the floor but for intellectual work, as it allows her to clearly demarcate herself as not simply as white or privileged, but as an educated woman in the classic Soviet mold. In this way, highly educated Russian immigrant women, once in Canada and stripped of their identity as professionals, experience tremendous stress. Furthermore, the stress associated with the study participants’ experiences of the credentialing process seems to have effects that are especially hard on women: loss of identity, depression, family break ups, and strain in their relationships. For this reason, the next chapter focuses on the female Russian immigrant engineers’ experiences with the PEO’s licensing process in much greater detail. Analysis of immigrant women’s attitudes towards the licensing process will unveil the psychological and emotional challenges faced by these women and also allow us to view the PEO’s licensing process from completely different angle.

CHAPTER THREE: IMMIGRANT WOMEN ENGINEERS
More than half of the immigrant women from the former Soviet Union and Russia, with whom I worked in my professional capacity as an employment consultant, hold academic degrees. Almost all of them had non-menial occupations before immigrating to Canada. Many of these women were not aware of the barriers to employment that they would face in Canada. Some of them hoped that their knowledge and experience would allow them to find a job in a short time. However, soon after their arrival these women learned that only low level, low skill jobs were available to them. Moreover, the extra burden of parental and housekeeping responsibilities coupled with a lack of English language instruction appropriate for their occupational level often made the task of resuming their professional career in Canada very challenging. Working in menial jobs forced these women to the bottom of the social structure, where they faced a completely different social environment from the one to which they were accustomed to before immigration (Remennick, 1999). For many women this shift in social status led to isolation, depression, and a loss of identity. These women never found a sense of belonging in the department stores or cleaning services where they had to work in order to provide for their families. In this way, the loss of occupational identity coupled with the common stress all immigrants experience in their initial years in Canada profoundly and negatively affected lives of many of the Russian immigrant women engineers, ranging in effects from depression to the dissolution of marriages.

The next chapter addresses the gendered aspects of the engineering profession and credentialing. The chapter concludes with recommendations on how the present situation of immigrant women engineers might be changed to benefit the economy and ensure greater gender equality in the engineering occupation in Canada.
Immigrant Women Engineers and the Overall Situation of Immigrant Professional Women In Canada

According to Kofman (1999), women who immigrate from countries where engineering is less of a male-dominated profession may face severe barriers in Canada that they did not experience in their home country, resulting in deskillling, brain waste and occupational skidding (p.90). In part, immigrant women engineers encounter more barriers to obtaining their professional license in Canada than their male counterparts; in addition to whatever obstacles they face as foreign-trained professionals, immigrant women engineers also run up against deeply engrained sexist beliefs that they are not suitable for the combination of hard sciences and mathematics found in engineering.

Sexism in the engineering occupation in Canada can be traced to the early 19th century. Below is a quotation from an undated source which illustrates beliefs of the time about women’s intellectual capacities:

Culture in young women should never develop into learning: for then it ceases to be delicate feminine culture. A young woman cannot and ought not to plunge with the obstinate and persevering strength of a man into scientific pursuits, so as to become forgetful of everything else. Only an entirely unwomanly young woman could try to become so thoroughly learned, is a man’s sense of the term; and she would try in vain, for she has not the mental faculties of a man (cited in Rossiter, 1982, p.74).

Much of the literature on women in science and engineering confirms that well into the 20th century, “prejudicial attitudes, negative stereotypes, and discrimination continue to constitute barriers for women within engineering (Vetter, 1992), perhaps resulting in the historically low participation of women in engineering educational programs and in the field
of science and engineering in general. This situation led to the creation of an action plan by Canadian educational institutions, the Canadian government, and Ontario’s engineering regulatory body to involve more women into the occupation.

Over the past decade some progress has been made and there is an increased number of female students enrolled in science and engineering university programs today. However, while the number of female engineering students and faculty has increased, the majority of female students have registered for the various branches of bioengineering and financial engineering, but not in the traditionally male-dominated branches of engineering such as civic, mechanical or chemical engineering. In addition, educational leaders, economists, and sociologists argue that women’s participation in engineering is beneficial not only for women but for the industry as a whole. Yet, immigrant women engineers appear not to be perceived as a possible solution to the underrepresentation of women in Canadian engineering. The fact is that highly educated immigrant women (including women engineers), regardless of their country of origin and educational level, are disproportionally located in the low paid unstable and menial jobs.

Perhaps one reason for the perpetuation of this situation is that the dismal employment prospects facing female immigrant professionals favours the interests of Canadian employers. In 1999 Mojab conducted a study on 86 immigrant women enrolled in the English language and computer classes in Toronto that revealed a complex pattern of skilling and deskilling of immigrant women to reflect current labour market needs. According to her study, 63% of these women with postsecondary education were unemployed. Almost 15% of these women had university degrees in science including engineering. Mojab (1999)
argues that “the women’s intellectual capacity had been undermined in Canada and they were seen primarily as a potential source for menial labour” (p.31).

Another confirmation of the devaluation and non-recognition of highly educated immigrant women’s skills and knowledge is provided by Larissa Remennick’s study. She has done extensive research on career development of highly educated Russian immigrants in Israel and the United States, and in her study she noted that female engineers have manifested poorer employment outcomes than their male counterparts. She outlines three main reasons for this outcome: first, the engineering profession is historically male-dominated in these countries, second, there exists a dominant societal stereotype that women are not suitable for highly skilled occupations, and third, that women often shoulder the responsibility for the family income in some cases, and/or childcare responsibilities are often women’s top priority. All these factors can cause immigrant women engineers to become detached from the profession during their initial years in Canada (Remeninck, 2003).

In addition, as noted in the first chapter, Canadian white-collar and professional labour markets demand “soft skills,” such as computer proficiency, self-marketing, and high fluency in the English language under the label of “Canadian work experience.” All of this is coupled with the traditional preference of Canadian employers for white male workers. This bias is often a cause for dramatic occupational downgrading among highly educated female immigrants, such as women engineers from the former Soviet Union. Finally, as also demonstrated at the beginning of this thesis, the policies and practices of professional regulatory bodies present a formidable barrier for newcomers. As a result, even established professional women are often unable to find a job in their area of expertise once in Canada.
Consequently, highly educated, skilled immigrant women become deskillled workers or are unemployed (Man, 2000). The jobs they obtain are often low-status, low-paid and part-time positions, which they may take up to meet their immediate requirements. Often being a sole providers to a family (especially when their spouses are unemployed or in training for professional skills), and at the same time the main providers of childcare, immigrant women—without an extended family support system in the new country—are forced to carry a tremendous workload in their everyday life. Their household and childcare responsibilities in turn often prevent them from engaging in full-time positions, and in some cases, deter them from taking English language classes. Moreover, existing English classes are often inadequate for meeting the employment needs of these professional and highly skilled women. Sadly, the “brain drain” of professionals emigrating from developing countries becomes a pool of “deskillled” labour in their destination countries (Man, 2004). In other words, neoliberal polices and practices coupled with the accreditation requirements and racialized discriminatory practices embedded in Canadian society intersect in complex way to marginalize highly educated and skilled immigrant women (Man 2004; Majob 2001; Slade 2003).

The marginalized status of highly educated immigrant women, in particular female immigrant engineers, has been discussed in detail in Bonnie Slade’s work (2003). She argues that despite the attention in the literature to Canadian-born and educated women in engineering, discussion of the issues pertaining to immigrant women engineers appears to be lacking. She concludes that the rather limited focus on the situation of immigrant women
engineers indicates the severity of their marginalization in the Canadian labour market and society at large (Slade, 2003).

The analysis of the responses of the female participants in this study, which is provided below, is therefore an important addition to the literature on immigrant women engineers in Canada. But it also highlights the lived experiences of female engineers from the former Soviet Union and Russia, who live and work in Toronto, Ontario, and the impact of these experiences on their identity, families, and overall psychological well being.

**Russian Immigrant Women Engineers in Toronto**

Despite the many difficulties and stresses associated with their lives as immigrants, some of female Russian immigrant engineers are extremely determined to reestablish themselves in their profession once in Canada. Although they face the same barriers on their way to professional practice in Ontario that all immigrant professionals do, an analysis of their responses revealed a significant difference in how female participants in the study experienced the PEO’s licensing process, as compared to their male counterparts. All participants in the study admitted that, in general, the licensing process can be described as a time-consuming, expensive, and stressful experience. As I noted at the end of the previous chapter, male participants mostly complained about the time-consuming nature of the process as well as the stress associated with examinations, whereas female participants expressed more positive attitude towards the licensing process. Women in the study seem to approach the PEO’s requirements as another of life’s challenges, and hence they focus on strategies for overcoming this challenge rather than on evaluating the fairness of the licensing process per
For example, when asked how she felt about assigned examinations one female participant stated:

I am a professional. I’ve been studying all my life. Some more examinations are not going to hurt me. Even now I study Java and other programming languages in addition to engineering exams. I can do it, I am confident I will be able to find a job if I study hard. If I will not pass the licenses examination ha, ha, ha... I will pass of course. I will do programming. I will find my way. I am an intellectual (Olga, April 2012).

Another participant, Tatiana, articulates a similar attitude toward the licensing process. Again, a there is an assurance that a positive outcome is mostly a matter of enough study and hard work, and that this represent nothing new for an educated woman:

I want to say, in sum, that the program [the PEO licensing process] is not easy and requires additional studies but it is realistic. You don’t need to be a superstar to pass. I was studying by myself for the last exam. I passed. I have full time job, children, and yes, I studied on Saturdays and Sundays . . . I was studying and studying . . . (Tatiana, March, 2012).

This positive attitude of the women in the study could be explained as rooted in these women’s experiences first as students, and then as women engineers in their home country. In Russia and the former Soviet Union, engineering education is formally open to men and women alike, and women comprise about 40 per cent of the country’s cadre of professional engineers (Remennick, 1999). However, these professional female engineers worked extremely hard to obtain their status as respected professionals. While Communist ideology erased formal inequality between men and women, they could not totally eliminate the existence of gender stereotypes in everyday life. Even though there has never been a notion in Russia that math and other precise sciences are fields not suitable for women, it was believed that if women wanted to pursue science they should become doctors or teachers due
to their nurturing qualities. Young women who attended engineering courses often were stereotyped as fortune seekers, whose main purpose was to find a spouse. There were indeed in my own acquaintance some young women who were admittedly looking for husbands, and who, once married and with children, did not continue with their studies. Those who stayed to continue their education at the masters or doctoral level had the burden of proving everyday to their professors and male peers that they were equally capable and smart. But by graduation these women had grown into emotionally strong, competitive, and well-educated engineers who were bound for managerial or academic positions. These professional achievements made such women functionally independent of men.

These particular circumstances are why it is important to carefully trace the identity transformation of these women as they immigrate to Canada. Olga, whose Master’s degree in electrical engineering conferred upon her the hard-won status an authoritative professional woman in Russia, remarked on her changed situation in Canada:

I know that if I am a woman it is harder for me to get a position I want in Canada. In Russia I was a manager. I had 10 men in my team. You know that there are only a few women who made it to a Master’s degree so men have to respect us. After so many years [in the engineering] field, I come here and they [Canadian employers] look at me as a woman and not as at a professional! (Olga, April 2012).

As a “proven” professional woman, Olga is both surprised and annoyed that her professional status is undermined by her gender in the eyes of Canadian employers. For many Russian immigrant women engineers, gender inequality experienced at the professional, rather than educational, level of engineering is a form of sexism to which they are unaccustomed. It is also a barrier that they often cannot break through, even with their considerable skills, knowledge and work experience in the field.
Once these women are prevented from continuing their professional practice in Canada, they often face the tough decision of accepting a low level job or becoming a homemaker. Unfortunately, the more time they spend away from the profession, the more their professional skills become outdated. As Remennick notes, “The delay of career-related activities till ‘better times’ may often be fatal in the sense that the routine of daily unskilled work and detachment from the professional milieu gradually diminish both motivation and ability to get back to professional work” (Remennick, 1999. p.771). Moreover, female Russian immigrant engineers have a difficult time adjusting to their new role as homemakers or unskilled workers, as it robs them of both their former independence and the intellectual stimulation they enjoyed in their professional life as engineers. During my interview with Olga, she expressed disappointment that many female Russian engineers decided not to pursue professional licensing in Ontario, or as Olga put it, “fight for the right to be an engineer in Canada.” She told several stories of her female engineer friends who decided to become housewives or to accept menial jobs and spoke of how they became depressed and disappointed with Canada as a result, observing that the loss of occupational identity is a psychologically detrimental experience.

Since some of these women cannot easily comply with their newly-assigned roles, they resist in a number of ways. For example, they accept low-skilled jobs such as technicians but take English and professional courses after work. They also apply for professional licensure and quietly cope with all the hardships this process brings upon them. It is important to note that the fact that these women complain less about the challenges of an immigrant’s life and the PEO’s licensing process in particular does not mean that they experience less
stress and depression than their male counterparts. Rather, for many of these women living through these professional challenges is the most stressful time in their life; in the course of the re-credentialing process many families fall apart, often as a result of the identity crisis these women experience and their desperate attempts to improve their social and economic situation.

**Balancing Family, Work and the P.Eng. License Preparation**

As became clear from their responses, the involvement of the study’s female participants in the licensing process caused them to struggle with balancing their family life, a full time job, and the examination preparation, often without any form of support. For example, two female participants stated that their spouses were not supportive of their endeavor to obtain the P.Eng. license. These women separated from their husbands while going through the licensing process. Both participants denied a direct connection between their involvement with the PEO’s licensing process and their divorce; yet their responses indicate that there might be some correlation between two of these events. For example, Tatiana explained:

> It was like either family or work [getting the license and becoming an engineer], I know it was a bad choice. . . Husband and children, and I didn’t do anything with them. My husband was not supportive, he was not interested in what I do. I was busy. I was also not interested in my husband, children (Tatiana, March 2012).

These participants also stated that because they were spending almost all of their free time preparing for exams, their spouses had to carry on with the household and a childcare responsibilities solo, which in turn led to conflicts and stress in their families. The
interviews with these women illuminate how the pursuit of career-related activity such as preparation for the license examination or working on English language skills (for the PEO’s ethics examination) while engaged in full-time work (often in a low level, poorly paid position) is not always possible without putting considerable strain on their marriages.

Moreover, being a single mother often put additional pressure on these immigrant women engineers. In the study, two out of the three female participants became single mothers while working on their professional license. For these women, becoming licensed and having a professional job was their only option for survival in Canada. These women saw themselves not only fighting for their identity as professionals but also trying to secure better future for their children. For example, as Olga explained:

I have a very strong desire to continue in my field. I am not going to any other sectors. Here [in engineering] I want to get a better position and more money. Now I must, I am a single mother. I have to support my child. We live now in a basement apartment. I don’t want to live like this all my life. I must and I will get something better for us (Olga, April 2012).

This statement echoes Remennick’s study (1999), which points out that “being an immigrant engineer and a single mother was a harsh constellation, and very few such women could reconfigure themselves in their original occupational pass” (p. 716). Tatiana, who is also a single mother, expressed that undergoing the professional licensing preparation without any support from her spouse or family often caused her sleepless nights and that she worried that she will not be able to finish it.

These participants’ accounts underscore how strong, determined, and organized these female Russian immigrant engineers must be in their quest to regain their professional status. Yet it is interesting to note that during my interviews with these single mother
engineers, they did not complain much about the PEO’s process. In fact they saw their involvement with the regulatory body as a chance for a better future for both themselves and their children. In a light of their divorces they redoubled their focus on examination preparation as it, in Olga’s words, “[is] really helping [me] not to think about my [divorce] situation;” they also demonstrated an unshakeable faith that the PEO’s licensing process, once endured, would open up more doors for better jobs and financial stability. In viewing the re-credentialing process as a reliable gateway, these single mother immigrant women engineers did not question or evaluate its regulatory practices. Yet while these women were working hard to reclaim their occupational identity, the PEO’s licensing process further marginalized them by imposing on them requirements that were even more onerous to them than to other immigrant applicants. Single mothers experience additional stress while going through licensure as they often the sole providers of income and childcare for their families. These women often feel considerable guilt as their studies for the P.Eng. license take away their already minimal time with their children. Based on the responses of the participants who are single mothers, it is clear that at the end of the licensing process they feel emotionally and physically exhausted.

Conclusion

Although internationally-educated women engineers share the experience of sexism that Canadian-educated women face and the racism that internationally-educated men face, there has been no solidarity between these groups to challenge the exclusive nature of the engineering profession (Slade, 2003. p.116). As has been illustrated above, there are many
barriers to employment for all engineers trained in the former Soviet Union, but female engineers must overcome more obstacles to gain access to the profession in Canada. However, they often approach the PEO’s requirements as simply another of life’s challenges, to be dealt with stoically. The attitudes that emerged during interviews with the female participants in the study seemed to be shaped by both their past experiences as female engineers as well as their desperation to regain their identity as professionals and the financial independence accompanying it.

In order to change the situation of skilled immigrant women engineers it is important to alert female Canadian engineers to the problems that their internationally-educated counterparts face. Through solidarity and unionization, highly educated women would be able to make changes that might reshape the overall demographic of the engineering occupation in Canada. Such demographic change would allow the brightest and the most capable unrestricted access to the field, contributing not only to the erasure of gender inequalities in the occupation but also to the broader national economic interest.

CHAPTER FOUR: THE PARTICIPANTS’ PERSONAL TRAJECTORIES AND RECOMMENDATIONS FOR CHANGE

At this time we should review how the participants’ stories of obtaining the professional engineering license ended. Marina, who was already licensed at the time of the interview, continues her tenure as a manager at one of the largest telecommunication companies in Canada. She plans to move to a higher level of managerial positions within the company. During Marina’s workday, she is not only working on her own career growth, but she also mentors Canadian and foreign-educated engineers who are seeking professional
Looking back at her experience with the PEO’s licensing process, Marina feels proud of herself because she sees the P.Eng. license as the proof of her professional competence and perseverance. Despite the difficulties she experienced, Marina also felt empowered by the process, and began to share her licensure experience with those undertaking the process.

Olga, who was in the final stage of the licensing process at the time of the interview, is licensed now. She is currently searching for a job because her present employer clearly stated that the P.Eng. license would not result in an increase in her salary. Although the P.Eng. license preparation possibly contributed to her divorce, Olga too feels empowered by it because she feels self-sufficient, independent and hopeful for the future, all of which she believes are her reward for the struggle and hardship she underwent during the licensing process.

Sergei, who was denied the license because he failed to pass the required examinations, is working at a big plant located in the US, where he holds engineering position. He does not have the authority to sign projects that a licensed engineer would, but he likes his job despite the fact that it is more than 100 kilometers away from his home. Sergei feels his employer is a great company to work for and he may be relocating his family soon. Despite the fact that his experience with the PEO was mostly negative, he believes he learned a great deal from it, including how to navigate through networks to find a job as an engineer without being licensed. In addition, his present employment shows that there are employers in the United States who do not require “American experience” or soft skills, or even a professional license, especially when a candidate is experienced in the field. Sergey’s
confidence and self-respect increased as he proved to himself that his skills and knowledge alone could get him a job.

Tatiana, who is now working for a government organization, is proud to be licensed as she thus meets the requirement for her present position. She feels her P.Eng. license ensured her employment stability and perhaps also provided opportunities for professional growth. Tatiana divorced her husband during the licensing process and had to carry the great burden of family responsibilities entirely on her own. She describes this period as a very hard time in her life. Tatiana believes that through this hardship she grew into an independent woman who holds her professional destiny in her own hands. She feels she not only proved to herself that she is an intelligent and capable woman, but also demonstrated to her children the value of perseverance and determination. Tatiana, as in the case of the other female participants in the study, ultimately felt empowered by her participation in the PEO’s licensing process.

The fifth participant in this study, Andrey, was preparing for the last examination (on professional ethics), at the time of our interview. He too is now licensed and is currently searching for a better job. Now with license in hand, Andrey feels that there are more opportunities available to him in the engineering field. Having completed the P.Eng. licensing process, his current priority is to start a new family, while continuing to support his children from a previous marriage. Unlike the female study participants, Andrey does not necessarily feel empowered by the process. He described his involvement with the PEO licensing process as an essential and unpleasant task that he had to complete in order to access better job opportunities. In his opinion, by completing the PEO’s licensing process, he reclaimed what
was always his—the professional identity of an engineer. He was tired of the process and viewed it as a obstacle to the improvement of his personal life.

Although the female participants were largely empowered by their successful completion of the licensing process, it is important to remember that stress and confusion were an inseparable part of their lives during that time. With all the negative aspects of the process behind them, the study participants now feel relieved and hopeful for a brighter future in Canada. The P.Eng. license to some extent helped them recover from the identity crisis they went through at the beginning of their lives in Canada. Achieving the P.Eng. license is just the beginning for them.

Overall, all study participants confirmed that the PEO’s licensing process is long and stressful. The analysis of the PEO’s history and the motives underpinning the creation of this regulatory body reveals the unbalanced nature of the engineering licensing process in which the emphasis is on proficiency in soft skills rather than technical competence. This unbalanced process challenges an immigrant engineer’s identity along professional, racial, and gender lines. This identity challenge in turn often leads to stress, family conflicts, and overall hardship for these P.Eng. license applicants. The study also reveals that women and men are affected differently by the process. Single mother immigrant engineers experience the most stress during the licensing process, because they often lack any support in dealing with their family obligations. Single mothers, therefore, are the most disadvantaged applicants. Consequently, many women and especially single mothers immigrant engineers decide to not even start the process or quit it without completion. This in turn leads to their deskilling and results in “brain waste.”
The P.Eng. license is a source of pride and self-respect for all of the participants who earned it. However, as in the case of Olga, whose employer is still indifferent to her new status as a licensed engineer, the license alone does not guarantee upward career mobility as it does not put immigrant engineers on an equal footing with Canadian-educated engineers in the soft skills aspect of the occupation. In addition, the study participants’ responses clearly signaled that there is a lack of any kind of support for the psychological impact of the process from the regulatory body or even from advocacy organizations such as the Ontario Society of Professional Engineers (OSPE).

At this time it appears that the PEO’s policy is to place all responsibility for becoming licensed onto applicants, and this may be why it does not offer programs providing the psychological support to applicants. The Ontario Society of Professional Engineers has also overlooked this aspect of the PEO’s licensing process, even though they offer other forms of support. For example, OSPE’s website lists a number of courses which are designed to address a perceived lack of soft skills among immigrant engineers, including courses on how to deal with difficult people, or how to improve conflict management skills. But the notable lack of any courses, workshops, or counseling specifically addressing coping strategies for the stress of going through the PEO’s licensing process is what informs to a large degree the recommendations on improving the licensing process that follow in the next section.

**Recommendations**

As indicated above, analysis of the interviews with engineers trained in the former Soviet Union clearly indicates that the unbalanced nature of the engineering licensing process
puts significantly more stress on women than on men, especially single mothers. This in turn exposes a bias in favor of male applicants (disguised by the equal requirements policy) which is coupled with a traditional preference for male workers among Canadian employers, making re-entry into the engineering occupation extremely difficult for female immigrants, while simultaneously preserving the exclusive nature of the engineering profession in Canada. Moreover, stress, identity crises, and family conflicts are factors which profoundly affect those who are seeking credentialing in this country. Therefore, strategies to reduce or eliminate these negative aspects of the licensing process need to be developed. The establishment of free counseling services for applicants, the provision of better informed support services from community workers, a new role for the PEO in this process, and the democratization of engineering’s regulatory body are the main recommendations which emerge from this study’s findings.

First, the psychological aspects of being involved in the PEO’s licensing process must be addressed by the PEO, in the form of adequate and free counseling services provided to its applicants. The PEO’s officials as well as members of their examination committee need to be aware of the amount of stress individual applicants experience while trying to obtain the P. Eng. license, working full time, and caring for their families.

Second, practitioners who work with immigrants such as employment consultants or job developers also need to be informed of this aspect of the licensing process. A better understanding of the psychological impact of the process on the applicants would allow those who are involved in the licensure and employment support for this group of immigrants to develop and provide more effective services.
The next step, which might decrease the negative impact of the PEO’s licensing process on applicants, is to redefine the PEO’s role in regulating the occupation. Right now, through its policies and procedures, the regulatory body acts as a gatekeeper. Public safety and the specifics of Canadian climate are among the oft-stated reasons for putting immigrant engineers through a number of examinations. While it is always important to ensure that all engineering projects are designed and built in safe manner, it is not necessary that this safety be achieved at the cost of such damaging stress to immigrant engineers. Instead I propose that the regulatory body starts to regulate the profession in a way that reduces the competition between Canadian and foreign engineers in the already limited labour market of Ontario. This kind of regulation can be achieved by creating a community of practice within the PEO. This community of practice would allow immigrant engineers to incorporate and learn new, Canadian-specific soft skills, and at the same time share their wealth of knowledge and the expertise they bring with them from their home countries. Working in collaboration rather than in competition might lead to a better integration of immigrant engineers into the Canadian labour force while simultaneously guaranteeing occupational prestige and fair work conditions and pay. In addition, this proposed reform of their approach to professional regulation would reshape the image of the PEO, transforming them from a gatekeeper into a progressive organization which actively promotes the interests of both engineers and the Canadian economy by nurturing engineering talent, regardless of gender or country of origin.

When put together, the many scholarly publications and newspaper articles on the topic, the responses of my study’s participants, my own professional work experiences and that of many of my colleagues, signal that now is the time to initiate the democratization of
the engineer’s regulatory body in Ontario. This is my last, but most important, recommendation. Public discussions are one of the most effective ways to begin this process.

The Ministry of Citizenship and Immigration, the PEO, OSPE, employers, non-immigrant and immigrant engineers must come together and through open dialogue develop new practices for the professional licensing process, which would reflect the needs and interests of all.
References


Engineering Institute of Canada. (1927). The origin and development of the Canadian Society of Civil Engineers, now The Engineering Institute of Canada. Journal of the Engineering Institute of Canada, 10(7), 359–361.


Appendix A: Recruitment Script

My name is Oksana Ostapchenko and I am a graduate student in the Department of Sociology and Equity Studies in Education at OISE, University of Toronto. I am currently working on a Major Research Paper project. As a part of the project I am conducting a research on personal experiences of newcomers to Canada from the former Soviet Union who are holders of university diplomas in the area of civil, mechanical, chemical, computer engineering and who have applied for recognition of educational credentials, have granted or denied such credentials by the Professional Engineers of Ontario licensing body. The part of the research is to do an interview with focus on your personal experiences of obtaining the Profession Engineer license in Ontario. I would be grateful if you could give me about an hour of your time to talk; I would like to tape-record the interview if possible. I will be asking you for formal consent, and going over with you a letter which explains all things you need to know about confidentiality, access to data, and other topics related to your participation. Please do not feel you must agree to thus request: if it is inconvenient for you I fully understand, and I will certainly be able find someone else.

Appendix B: Consent Form

CONSENT FOR PARTICIPATION IN PERSON INTERVIEW
Project Title: Credentialing Foreign-Trained Engineers in Ontario

Name of Researcher: Oksana Ostapchenko
Contact Information: oksana.ostapchenko@mail.utoronto.ca,
Department: Sociology and Equity Studies in Education
Name of Institution: Ontario Institute of Studies in Education, University of Toronto
Project Description: This ethnographic research project seeks to provide better and deeper understanding of how newcomers who are holders of university diplomas in Engineering from the former Soviet Union experience professional licensing process in Ontario. The project will contribute to deeper and further understanding among scholars and interested public of the efficiency and effects of the engineers’ credentialing process in Ontario. The project uses formal one-on-one interviewing defined as face-to-face interaction between the researcher and an individual for the purpose of collecting primary information about an individual’s experiences, views, opinions and ideas of the process of licensing engineers trained in the former Soviet Union block in Ontario. The project constitutes a Major Research Paper towards Master of Arts Degree program completion.

You are invited to participate in one-on-one interview discussing your views and personal experiences of the Profession Engineers in Ontario regulatory body licensing process. The Major Research Paper may cite your views, experiences and your words to illustrate. For further information, please contact me at 416-731-0556 or by email oksana.ostapchenko@mail.utoronto.ca.

Purpose of the Interview: The purpose is to present and illustrate views and personal experiences of the professional licensing of internationally trained engineers who are holders of university diplomas from the former Soviet Union.

Description of Activities: You will participate in one-on-one conversation in a public place, where I, Oksana Ostapchenko, will ask you questions related to your personal experiences with licensing process. You will be invited to address each of these questions as you see fit. You may leave or stop the conversation at any time without providing reasons for doing so. If you agree to a copy of the interview will be provided to you at your request.

Confidentiality: Your name or any information you provide will be treated as confidential and will not be shared with other parties or indicate any written or non-written documents related to the project.

There is no known harm associated with participation in this interview.

Benefits include: Contribution to a study which will provide deeper and further understanding among scholars and interested public of the efficiency and effects of the engineers credentialing process in Ontario.

PARTICIPATION IN THIS INTERVIEW IS VOLUNTARY, IF YOU CHOOSE TO PARTICIPATE IN IT, YOU MAY WITHDRAW AT ANY TIME.

By signing this form I agree that:
• The interview activities and purpose have been explained to me.
  
  YES  NO

• I understand that I have the right to withdraw from this interview at any time.
  
  YES  NO

• I have a choice of not answering questions during the interview.
  
  YES  NO

• I have been told that no information I provide will be shared or disseminated.
  
  YES  NO

• I understand that I will receive a signed copy of this consent form.
  
  YES  NO

I hereby consent to participate in this interview:

Name of participate:

____________________________________________________________

Signature:_______________________  Date:_________________
Appendix C: Interview Questions

1. Questions regarding when and how the idea of becoming a Licensed Engineer emerged.

2. How and when have you obtained information about the licensing process?

3. How much time was required to complete the process?

4. What are the main barriers and difficulties you face(d) during the licensing process?

5. How did your family members react to your decision to become licensed?

6. How was your family life, work and overall well being affected by your involvement with the licensing process?

7. Questions regarding future plans and hopes.