VARIETIES OF CAPITALISM, WELFARE TYPOLOGIES, AND EDUCATIONAL DIFFERENTIATION:
A CROSS-NATIONAL ANALYSIS

Nora Jean Weber

A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Political Science, Concentration European Governance.

Chapel Hill
2018

Approved by:
Donald Searing
Milada Vachudova
Rahsaan Maxwell
ABSTRACT

(Under the direction of Donald Searing)

This analysis explores the relationship between a state’s macroeconomic structure and welfare state typology, and its approach to educational differentiation. Educational differentiation describes the separation of students into unique curricular tracks, and has been widely discussed in studies of education and stratification. In this analysis, I explore whether patterns in national educational differentiation occur, based on states’ classification across two dimensions: variety of capitalism (based on Hall and Soskice’s “Varieties of Capitalism” theory), and welfare state regime (based on Esping-Andersen’s welfare state typologies). After operationalizing educational differentiation and taking measurements across a sample of nine European states, I conclude that, while some overarching trends exists, there is also significant within-classification variation in educational differentiation. I additionally examine primary government documents to identify patterns in states’ framing of education in relation to stratification and inequality based on the aforementioned classifications, and find no clear alignment with respective macroeconomic and welfare state characteristics.
To my parents and sisters, for your unwavering support and love. Thank you.
TABLE OF CONTENTS

LIST OF TABLES ........................................................................................................................................... vi

LIST OF ABBREVIATIONS .............................................................................................................................. vii

CHAPTER 1: AN INTRODUCTION TO EDUCATIONAL DIFFERENTIATION, THE RESEARCH QUESTION, HYPOTHESES, & METHODOLOGY ................................................................. 1

Introduction .................................................................................................................................................. 1

1.1: Education & Cross-National Comparison ............................................................................................ 1

1.2: Shaping Expectations - Varieties of Capitalism & Welfare State Regimes .............................. 3

1.3: Educational Differentiation as a Grouping Factor ........................................................................... 9

1.4: Hypotheses ......................................................................................................................................... 10

1.5: Methodology ...................................................................................................................................... 13

Table 1: Macroeconomic and Welfare State Classification of Sample Nations ............................. 14

CHAPTER 2: SUMMARY OF FINDINGS ........................................................................................................ 16

Introduction ................................................................................................................................................ 16

1.1: Organization of Findings .................................................................................................................. 16

1.2: Subsects I & II - Years of Comprehensive Education & Age at Tracking Onset ...................... 17

Table 2: Timeline of Compulsory Education & Major Tracking Milestones ..................................... 18
1.3: Subsects III & IV - Number of Tracks & Proportion of Tracks by Type .......................... 20

Table 3: Number & Classification of Educational Track .................................................. 22

1.4: Subsect V - Flexibility of Certificate by Track ............................................................ 23

Table 4: Flexibility of Secondary Degree or Certification ................................................ 25

1.5: Subsect VI - Primary Tracking Determinant .............................................................. 26

Table 5: Determinant of Initial Student Tracking ............................................................. 28

1.6: Attitudes toward Education across Varieties of Capitalism & Welfare State .......... 28

   Canada .................................................................................................................................. 29

   United States ...................................................................................................................... 30

   United Kingdom ............................................................................................................... 30

   Germany ............................................................................................................................ 31

   France ............................................................................................................................... 31

   Netherlands ..................................................................................................................... 32

   Sweden ................................................................................................................................ 32

   Finland .............................................................................................................................. 33

   Norway ............................................................................................................................. 33

   Analysis ............................................................................................................................. 34

CHAPTER 3: DISCUSSION OF FINDINGS, IMPLICATIONS, & CONCLUSION .................. 35

Introduction ......................................................................................................................... 35

1.1: Review of Purpose & Key Findings ............................................................................ 35
LIST OF TABLES

Table 1 - Macroeconomic and Welfare State Classification of Sample Nations .......................... 39

Table 2 - Timeline of Compulsory Education & Major Tracking Milestones .............................. 58

Table 3 - Number and Classification of Educational Track .......................................................... 58

Table 4 - Flexibility of Secondary Degree or Certification ............................................................. 49

Table 5 - Determinant of Initial Student Tracking ................................................................. 39

Table 6 - Composite of Educational Differentiation Variables by Nation ................................. 22
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CME</td>
<td>Coordinated Market Economy</td>
</tr>
<tr>
<td>LME</td>
<td>Liberal Market Economy</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational and Educational Training</td>
</tr>
<tr>
<td>VoC</td>
<td>Varieties of Capitalism</td>
</tr>
</tbody>
</table>
CHAPTER 1: AN INTRODUCTION TO EDUCATIONAL DIFFERENTIATION, THE RESEARCH QUESTION, HYPOTHESES, & METHODOLOGY

Introduction

This chapter defines the purpose and context of this analysis. It provides a concise definition of educational differentiation and summarizes background information and literature essential to understanding the research question, methodology, and findings.

1.1: Education & Cross-National Comparison

Although a fundamental institution of every modern democratic nation, education has, until recently, been overlooked in comparative welfare regime and political economy research (Busemeyer 2015; Busemeyer and Trampusch 2011; Iversen & Stephens 2008). As studies have begun delving into education’s relationship to these fields, scholars have focused on the interplay between education and factors such as inequality and social stratification, labor market development, and innovation, among others. Overwhelmingly, research has suggested that significant links exist between a state’s organization and delivery of education, and its respective social and economic circumstances (Marks 2005; Hanushek and Wößman 2006; Pfeffer 2008, 2014; Busemeyer 2015). This consensus – that education and national socio-economic institutions and outcomes are inextricably linked – underlines the relevance and value of understanding these relationships with greater nuance.
The purpose of this analysis is to contribute to the growing body of research into the relationship between national economic structure, welfare state typology, and institutionalized education. This analysis focuses on educational differentiation, a key distinguishing feature of national education systems. Educational differentiation refers to the institutionalized ways in which students are separated into unique curricular pathways, and is often referred to as “tracking” or “streaming”. Educational tracks may be distinguished by subject matter, or by the speed or level of complexity at which students are taught (Brunello et al 2004; Hanushek and Wößmann 2006; Pfeffer 2008). Traditionally, studies have defined national education systems broadly as exhibiting either “strict” or “weak” levels of differentiation (Pfeffer 2008, 2014). An education system’s degree of differentiation is typically determined by several factors, including: The age at which students are separated into distinct tracks; the proportion of tracks dedicated to general, academic, or vocational curricular trajectories; and how much autonomy students have to select and transfer between curricular tracks (Sorensen 1970, Page 1991, Marks 2005, Pfeffer 2008 and 2016).

Prior research has examined how certain aspects of educational differentiation – particularly the prominence vocational training – differ across welfare regimes and varieties of capitalism (Wilensky 1975; Hanushek and Wößmann 2006; Busemeyer and Trampusch 2011; Holm et al 2013). Similarly, research has used the broad categorizations of educational differentiation (strict/weak) to examine trends in quality and equality of education between nations and welfare state typologies (Marks et al 2007; Willemse and de Beer 2012; Veloso and Estevinha 2013; Pfeffer 2008, 2014). However, many questions remain unanswered about how educational differentiation compares across nations, and what specific aspects of differentiation are most closely related to socio-economic equity or stratification. In this paper, I hope to contribute to this body of research by addressing two questions. First, I ask whether the structure of educational differentiation (beyond vocational training) varies significantly based on a nation’s overarching economic structure and welfare state typology. Second, I ask
whether these same variables (macroeconomic structure and welfare typology) are related to
governmental attitudes toward education and inequality. I conclude that patterns of
educational differentiation are most cohesive among LME-Liberal states, moderately cohesive
among CME-Social Democratic states, and have the greatest variation among CME-
Conservative states. Intentions or attitudes of education in relation to inequality and
stratification are largely homogenous across the sample, with no clear association to variety of
capitalism or welfare state typology.

This analysis begins with an overview of the literature linking varieties of capitalism
(VoC) theory and welfare state typologies with educational structure. This is followed by a
description of my hypotheses, methods, and sources. I then provide an overview of findings by
variable, followed by an overarching discussion and additional considerations. To conclude, I
suggest future pathways for exploration.

1.2: Shaping Expectations - Varieties of Capitalism & Welfare State Regimes

The basic assertion of this analysis – that educational differentiation is related to a
nation’s economic structure and welfare state typology – is based on two bodies of theory. The
first is Hall and Soskice’s landmark “varieties of capitalism” theory, which established a
“framework for understanding the institutional similarities and differences among developed
economies” and was intended to overcome shortcomings of prior models (Hall & Soskice 2001).
The major premise of Hall and Soskice’s theory is that national trends in political economy
result from the strategic interactions of rational actors, each attempting to promote their own
interests.

Hall and Soskice developed their seminal theory in response to the limitations they
perceived in earlier approaches of explaining institutional variation between countries, which
had characterized nations based on factors such as the strength of the public sector, the state’s effectiveness in bargaining with employers and organized labor, or the ways in which firms and institutions responded to technological advances (ibid.).¹ In their “varieties of capitalism” theory, Hall and Soskice pose businesses and corporate interests as the central factors shaping national political economy, and suggest that variations in political economy are dependent on the capacity of firms to coordinate their interests with other economic actors (Williams 2011; Busemeyer 2015). Hall and Soskice point to five core areas in which coordination occurs, including: organized labor, investors, suppliers and clients, employees, and vocational and educational training. This final sphere is particularly relevant to this analysis, as it emphasizes the coordination challenge that both firms and individuals (as workers) face in aligning skills development with labor market demands.

From these foundations, Hall and Soskice assert that a nation’s model of capitalism may be categorized as either a Liberal market economy (LME) or coordinated market economy (CME) (Hall and Soskice 2001). Liberal markets economies exist where competition and hierarchy are the predominant mechanisms driving coordination between firms and the other actors (spheres), and equilibrium is determined by supply and demand. Conversely, coordinated markets occur where equilibrium is determined by strategic interaction or intervention from non-market actors or relationships. Among the countries highlighted in this analysis, three are widely considered to be Liberal market economies: the U.S., UK, and Canada. The other six are considered to be coordinated market economies: Germany, the Netherlands, France, Sweden, Finland, and Norway (ibid).

The anticipated relationship between a nation’s categorization as an LME or CME and their national education system is as follows. In Liberal market economies, an emphasis on competition reduces both firms’ incentives to invest in institutionalized skills and vocational

---

¹ Specifically, the modernization approach, neo-corporatist approach, social systems of production approach
education, and workers’ demand for such specialized programs (Hall & Soskice 2001; Edwards & Rees 2016). Firms are more likely to establish their own training systems rather than contributing to the development of sectoral or occupational systems, and lower job security among employees can create less rationale for workers to invest in industry-specific skills (ibid.). Scholars have also suggested ways in which national politics shape the presence and definition of vocational training in LMEs. Specifically, LME governments tend to favor deregulation, often making them hostile toward labor unions, which have historically been fundamental in promoting apprenticeship systems (Bosch & Charest 2008). Combined, these factors result in national education systems in LMEs that place more emphasis on generalized skills development, and firms that use employees’ general academic achievement and job performance to determine hiring and investment in further sector-specific training.

Contrastingly, in Coordinated Market Economies, stability, rather than competition, is the underlying principle. The public sector and employer associations serve as the “coordinating” actors between firms, and institutionalized education as a sphere in which coordination occurs (Hall and Soskice 2001; Sidorkin 2009; Busemeyer 2015). By incorporating vocational training directly into the education system, non-firm actors enable the development of skills among individuals respond to the corporate sector’s skills demands, without inciting competition that may prevent firms’ investment in training. Because of this, education systems in CMEs can be more diverse in their curriculums, focusing not only on general skills development as in LMEs, but also on training for specific industries or roles (Hall and Soskice 2001; Williams 2011). Firms are motivated to support this training by participating more directly in the development of curriculum and certification systems, to ensure qualification of incoming workers. Similarly, hiring practices behind these vocational programs make pursuit of vocational or sector-specific education more attractive to students. The result is an increase in the institutionalization of vocational programs, and in the overall transition from education to work (Hall & Soskice 2001).
Prior research – and a simple analysis – supports Hall and Soskice’s claims about differing degrees of institutionalized vocational training between LMEs and CMEs. Education systems in LMEs typically provide what is called *comprehensive* primary and secondary education, in which all students participate in a single “stream” of general mandatory education, preparing students for a variety of post-secondary pathways (Verdugo 2014; Brunello et al 2004). In CMEs, students more commonly participate in *selective* primary and secondary education, in which students are separated into differentiated curricular streams that prepare them more or less explicitly for future pathways, such as further studies, or specific vocational education and training (VET). This categorization of states as LMEs or CMEs, and the corresponding understanding of how each variety of capitalization institutionalizes VET, have been leveraged across a range of academic studies. Scholars like Marius Busemeyer, Richard Verdugo, and Jan Terwel have traced the historical developments of capitalist markets in the post-war period, focusing on interactions between business and other organized interests (political parties and labor unions, among others), and trends in simultaneous re-organization of national education systems.

While macroeconomic factors are fundamental to understanding disparate national approaches to organizing and delivering education, these aspects are primarily useful for predicting the presence and strength of vocational tracks. Macroeconomic elements may be less valuable in explaining other features of educational differentiation, such as the age at which tracking occurs, the length of comprehensive education, or the flexibility of secondary degrees. Exploration of these factors may be better served by examining a second area of research: welfare state typologies. The foundations of most modern comparative welfare state analyses were established by Gøsta Esping-Andersen’s landmark text, *The Three Worlds of Welfare Capitalism*. Much like Hall and Soskice, who created new categorizations for varieties of capitalism based on the role of business, Esping-Andersen responded to what he perceived as shortcomings in prior welfare literature to establish new welfare state typologies, based on a
state’s emphasis and organization of public benefits (Esping-Andersen 1990). Varieties of welfare capitalism or welfare state regimes by Esping-Andersen’s definition, encompass redistributive measures and social services, as well matters such as employment and wages, and acknowledges other macroeconomic concerns.

The major premise of Esping-Andersen’s analysis, based on extensive quantitative data, is that three welfare state typologies exist: the Liberal regime, the Conservative (or Corporatist) regime, and the Social Democratic regime (Esping-Andersen 1990; Stephens and Torben 2008).² By Esping-Andersen’s definition, Liberal regimes can be identified as systems that prioritize efficiency and competition, in which individuals receive public benefits primarily via participation in the traditional workforce. These public benefits are typically means-tested, extremely modest, and “often associated with stigma” (Esping-Andersen 1990). In Conservative welfare states, the Liberal emphasis on efficiency is replaced by a focus on subsidiarity, and maintaining social status and traditional family roles. Benefits cover a much broader range of individuals, but do little to redistribute wealth. In the third typology, Social Democratic, redistribution and de-commodification of labor are key characteristics, with an emphasis on equality of access to a much broader range of benefits than guaranteed in either Liberal or Conservative-corporatist regimes.

Unlike Hall and Soskice, Esping-Andersen gives considerably less emphasis to any individual actor. Rather, he states that the “hope of finding one single powerful causal force must be abandoned; the task is to identify salient interaction-effects” (Esping-Andersen 1990). In this way, welfare state theory pays more balanced attention to actors at various levels, including citizens/workers, labor unions, and political parties, among others. Esping-Andersen also acknowledges that welfare state typologies are not unchanging. He points to noted shifts,

² More recently, scholars have suggested a fourth cluster that encompasses southern European states, but this analysis focuses entirely on nations within the three original regime typologies.
for example, in Conservative states, and suggests that no regime type is immune to evolution due to macroeconomic or other forces (ibid.; Willemse and de Beer 2012; Hurrelmann 2014). However, the fundamental characteristics of and variation between typologies still exist, making these categorizations useful for cross-national comparison.

In establishing his model, Esping-Andersen emphasized that each regime is “organized around its own discrete logic of organization, stratification, and societal integration” (Esping-Andersen 1990; Stephens and Iversen 2008; Busemeyer 2015). Although education has traditionally been underrepresented in comparative welfare state studies, the three traditional typologies provide a useful basis for comparison in this analysis for two reasons. First, there is an objective difference in the amount and organization of public social benefits in regime type. In Liberal regimes, public benefits are meager and typically needs-based, and the typical path for securing benefits is through employment. Because of this, inequality tends to be highest in Liberal states. Conservative regimes, by comparison, offer a higher baseline of public benefits, but as certain benefits are typically tied to former employment, public welfare may do little to ameliorate existing social inequalities. In Social Democratic nations, public benefits are the most generous and least employment-dependent, and inequality is significantly lower than in either Liberal or Conservative regimes. Scholars have suggested a potential relationship between the generosity of public benefits, particularly unemployment benefits, and workers’ willingness to pursue sector-specific training (Edwards & Rees 2016). Before investing in less generally-applicable skills, workers must consider the potential risk of losing their employment, and what public benefits they would receive if that were to occur. For this reason, one may expect to find more institutionalized vocational training or educational tracks with more constrained outcomes in nations where public benefits are more generous, and more generalized education in nations where benefits are meager.
The second way in which Esping-Andersen’s classification serves this analysis, is his identification, not only of trends in the organization and delivery of benefits, but also of the underlying patterns among each welfare state typology regarding social stratification and inequality. In Liberal regimes, the strong emphasis on competition and efficiency comes at the cost of high levels of inequality and social stratification. This is demonstrated by the low investment in public welfare and the high dependency on employment for obtaining benefits. In Conservative regimes, emphasis on efficiency is also high, but the comparatively more robust public benefits serve to promote a higher overall baseline of equality than that of Liberal regimes. In Social Democratic states, emphasis on equality is highest across the three typologies, and emphasis on efficiency is lowest (although not, of course, absent). These patterns outline each welfare state’s “attitude” toward inequality, and are helpful for refining expectations regarding educational differentiation in cross-national comparisons, beyond the limitations of Hall and Soskice’s “varieties of capitalism” theory.

1.3: Educational Differentiation as a Grouping Factor

There are many ways in which educational systems can be studied and characterized, however, this analysis focuses on educational differentiation. Within my sample countries, educational differentiation manifests as students experiencing an “initial period of exposure to the same curriculum, followed by diversification of curricula into several tracks. … There are vocational and general or academic tracks, with allocation into tracks often based on previous performance and/or ability tests,” along with other measurable variables (Brunello et al, 2004). I chose to study national education based on patterns of differentiation throughout primary and secondary institutional education for several reasons. First, educational differentiation provides a clear and measurable range of comparison. Differentiation can be defined largely by variables that can be categorized, measured, and compared with relative ease and objectiveness. The
period of focus, primary and secondary education, was selected to align with the range of compulsory education in most modern democracies (ibid; Busemeyer 2015). Intersections between education and corporate interests can be operationalized by focusing on aspects such as the degree to which VET is institutionalized through the respective number of academic or vocational tracks. Similarly, the relationship between educational differentiation, welfare state typology, and stratification can be studied by examining trends such as the demographics of students participating in each track, and then analyzing subsequent academic and other (employment, income, etc.) outcomes.

The second reason that educational differentiation is valuable for this analysis, is the existence of a rich body empirical research into cross-national stratification and inequality. Although this analysis primarily addresses attitudes toward education and stratification, it is useful to be able to refer to existing data measuring educational equity on a comparative, empirical basis. It also increases the potential value of this analysis, which could be useful for delving into the nuances of the relationship between educational differentiation and stratification in future research.

1.4: Hypotheses

The purpose of this analysis is to contribute to the relevant body of literature by exploring the relationship between a state’s macroeconomic and welfare organization, and its educational system. As described above, this analysis focuses on variables related to educational differentiation to characterize and compare national education systems. The variables used to describe differentiation include: (1) years of comprehensive education (all students learning together); (2) age at which tracking begins; (3) number of tracks; (4) proportion of tracks dedicated to each type of education (general, academic, or vocational education); (5) flexibility of each secondary certification in allowing entrance to different post-secondary tracks; and (6)
mechanism by which students are tracked (student/parent decision, teacher decision, standardized examination). Separately, I look at (7) how each national government conceptualizes education in relation to social stratification and inequality. Justification for these variables is included in the Methods section, and in each subsection of findings.

My hypothesis is two-tiered. First, regarding the relationship between national economic structure and education, Hall and Soskice’s “varieties of capitalism” theory provides the basis for my assertion that educational differentiation will differ notably between countries classified as LMEs and those considered to be CMEs, specifically in regard to their incorporation of VET. (1) In LMEs, given the weak incentive or opportunity for firms to engage in the development of institutional education, I expect educational differentiation to be weakly defined in terms of the tracks offered, with non-existent or poorly defined vocational tracks. (2) Conversely, in CMEs, I expect to find much clearer delineation between academic and trade- or vocation-specific tracks, due to the active effort made to coordinate business interests with educational outcomes.

Second, based on Gøsta Esping-Andersen’s welfare state typologies, I expect to find that educational differentiation is least structured in the Liberal states, moderately structured in Social Democratic states, and the most structured in Conservative states. In comparing structure among regimes, I expect to find variation along the aforementioned factors, including the age at which differentiation occurs and number of years students learn together in comprehensive education, the proportion of tracks intended to provide general, academic, or vocational education, and the degree of autonomy students and parents have to choose or transfer children between tracks. Finally, I anticipate the relationship between education and inequality to be conceptualized by each government in a manner that aligns with the values of its welfare state, and its comparative attitude toward social stratification.

Specifically, (1) in Liberal welfare regimes, I expect to find that educational differentiation is weakly defined – marked by long periods of comprehensive education (all
students learning together), later tracking of students, and the fewest and least-defined tracks in terms of curriculum. Furthermore, I expect students (and parents) in Liberal regimes to have the greatest autonomy in selecting or moving between tracks. These expectations are based on the underlying competition- and efficiency-driven attitude of Liberal states as LMEs, in which both firms and workers are trying to remain as flexible as possible, and attainment of sector-specific skills is discouraged by a meager level of unemployment benefits and other social protections. Regarding governmental attitudes toward education and stratification, because inequality has historically been highest in Liberal states, I anticipate education to be posed as a resource rather than a right, and any mention of inequality to focus on students/individuals’ opportunities for self-advancement rather than any governmental responsibility to address stratification with education.

(2) In Conservative regimes, I expect to find that patterns in educational differentiation are defined by two demands. First, because firms have traditionally had significant influence in Conservative regimes as CMEs, I expect to find strong definition of educational tracks, and specifically robust pathways for attaining vocational skills, supported by a more comprehensive provision of public benefits that supports an investment in industry-specific skills. Second, because Conservative regimes have traditionally been more invested in maintaining status, rather than reducing inequality, I expect to find that educational tracking is strict, giving students the least amount of flexibility. I anticipate this manifesting in short periods of comprehensive education, early differentiation, highly defined tracks, and low student (and parental) autonomy in selecting or moving between tracks. Considering the emphasis on maintaining social structures but higher baseline of public benefits than in Liberal regimes, I anticipate that governments in Conservative welfare states will depict quality education as a right, but also strongly emphasize the role of education in maintaining economic or social stability.
Finally, (3) in Social Democratic regimes, I expect educational differentiation to be the most complex. Due to greater involvement of firms as CMEs, I expect to find stronger vocational pathways, similar to the Conservative model. However, because Social Democratic values heavily emphasize equity, I expect students to have more flexibility and autonomy in determining their educational pathways than in the Conservative model. Pulled by both the need to support these two demands, I anticipate finding moderate periods of comprehensive tracking (longer than in Conservative regimes, but shorter than in Liberal states), tracking that begins later than in Conservative regimes but earlier than in Liberal ones, a strong presence of both vocational and academic or general defined tracks, and more student (and parental) input regarding tracking decisions. Given the strong emphasis on equity in Social Democratic states, I expect governments in these states to explicitly link educational to efforts to improve equality and reduce social stratification, and to emphasize the government’s role or responsibility in providing education.

1.5: Methodology

To test my hypotheses, I collected and analyzed data across nine countries. Given my theoretical basis, I used Hall and Soskice’s categorizations to select countries that represented LMEs and CMEs, and Esping-Andersen’s classification to ensure variety between Liberal, Conservative, and Social Democratic welfare states. The division of countries along these independent variables is depicted in Table 1.
Table 1: Macroeconomic and Welfare State Classification of Sample Nations

<table>
<thead>
<tr>
<th>Country</th>
<th>Coordinated or Liberal Market Economy*</th>
<th>Welfare State Typology**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>LME</td>
<td>Liberal</td>
</tr>
<tr>
<td>U.S.</td>
<td>LME</td>
<td>Liberal</td>
</tr>
<tr>
<td>UK</td>
<td>LME</td>
<td>Liberal</td>
</tr>
<tr>
<td>Germany</td>
<td>CME</td>
<td>Conservative (Corporatist)</td>
</tr>
<tr>
<td>France</td>
<td>CME</td>
<td>Conservative (Corporatist)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>CME</td>
<td>Conservative (Corporatist)</td>
</tr>
<tr>
<td>Sweden</td>
<td>CME</td>
<td>Social Democratic</td>
</tr>
<tr>
<td>Finland</td>
<td>CME</td>
<td>Social Democratic</td>
</tr>
<tr>
<td>Norway</td>
<td>CME</td>
<td>Social Democratic</td>
</tr>
</tbody>
</table>

*Hall & Soskice, 2001
**Esping-Andersen, 1990

Furthermore, I defined educational differentiation in each country by measuring six dependent variables. The variables are: (1) years of comprehensive education; (2) age at which tracking occurs; (3) number of tracks; (4) proportion of tracks dedicated to each type of education – general, academic, or vocational; (5) whether secondary certification (degree, diploma, etc.) was flexible or inflexible in terms of what post-secondary track students could pursue; and (6) primary party responsible for tracking decision (student/parent, teacher/school administrators, exam). This information was drawn primarily from OECD cross-national reports and fact sheets, and the European Commission’s Eurydice. I used founding government documents to explore indications of educational intention – (7) if and how education is framed in relation to social stratification, and whether the role of the individual or the state is considered predominant in achieving this goal.

My justification for using the six aforementioned variables to define educational differentiation comes from their wide incorporation in the related body of research, and their relevance to the central questions and hypotheses of this analysis (Sorensen 1970, Collins 1977; Page 1991, Marks 2005, Pfeffer 2008). These variables are particularly valuable for comparative analysis because they provide objective measures of educational differentiation and minimize subjective bias. My exploration of governmental “attitudes” toward education and inequality is
less objective, but I tried to reduce my own partiality as much as possible, as described further in the relevant section of findings.
CHAPTER 2: SUMMARY OF FINDINGS

Introduction

This chapter details the findings of my analysis, conducted within the guidelines described in Chapter One. Findings are provided visually in tables, and explored in further detail in each of the following sections.

1.1: Organization of Findings

Findings related to the first six variables, which address measurable differences in educational differentiation, are organized into six subsects. Each subsect explores the respective variable as it is manifested across the sample countries, grouped by VoC and welfare state classification. A visual representation of the first six variables, those used to define patterns in educational differentiation, can be found in Appendix 1. Findings regarding attitudes toward education and stratification are described in a final, separate section. Because these results were much more complex in nature, they are not visually represented.

The six subsects and descriptive “attitude” section are followed by a Discussion, which highlights overarching analysis, and offers additional considerations that could complicate perceived relationships. Finally, the Conclusion provides recommendations for further study and analysis.
1.2: Subsects I & II - Years of Comprehensive Education & Age at Tracking Onset

Across the nine nations in the sample, and nearly all democracies worldwide, institutionalized education begins with a period of comprehensive learning, in which all students learn together and are exposed to the same curriculum (Brunello 2004). It is valuable to include length of comprehensive education as a variable, because research has consistently indicated that students with less socio-economically advantaged backgrounds benefit from longer periods of comprehensive education benefit, and are further disadvantaged by shorter periods of comprehensive studies (Manning and Pischke 2006; Boliver and Swift 2011; Holm et al 2013). The age at which tracking or differentiation occurs is relevant because studies have frequently (although not completely consistently) suggested that inequality is highest in educational systems with earlier tracking, compared to those where students are separated later (Marks 2005; Hanushek and Wößmann 2006; Pfeffer 2014). It is unclear if this effect is more strongly related to the total years of comprehensive education prior students participate in before differentiation, or an age-related factor.

Based on varieties of capitalism theory, welfare state classifications, and prior research, I anticipate longer periods of comprehensive education and later tracking decisions in Liberal Market Economies than in Coordinated Market Economies, because of the lower involvement of business and stronger emphasis on the development of generalized skills during formal education (Hall & Soskice 2001; Busemeyer 2015). Across welfare state typologies, I expect comprehensive education to be longest, and tracking latest, in Liberal regimes, given the weak provision of public benefits and underlying values of competition and efficiency, which reiterate the value of more broadly applicable educational credentials. In Conservative regime states, I anticipate the shortest period of comprehensive education and earliest tracking, influenced by the strong involvement of the corporate sector and the emphasis on maintaining social structures over reducing inequality. I expect periods of comprehensive educational tracking and
age of tracking in Social Democratic states to fall between the other two regime types, due to the involvement of firms and more generous public benefits that encourage investment in more specific vocational education, countered by the Social Democratic priority of reducing inequality (Esping-Andersen 1990).

My findings regarding years of comprehensive education (Table 2) broadly aligned with my expectations, although variation was very small. Between LMEs and CMEs, the three LMEs did incorporate the longest periods of comprehensive education. The Canadian, UK, and U.S. education systems each include about 10 years of comprehensive education. As the Liberal welfare regimes, this trend also followed my expectation that Liberal states would have the longest periods of students learning together, although only one year more than required in the Social Democratic states. There was very little consistency among the Conservative states, where years of comprehensive education ranged from only 4 years (German) to 8 and 9 in the Netherlands and France, respectively.

Table 2: Timeline of Compulsory Education & Major Tracking Milestones

<table>
<thead>
<tr>
<th>Country</th>
<th>CME / LME</th>
<th>Welfare State Type</th>
<th>Age when Education Begins</th>
<th>Years of Compulsory Education</th>
<th>Years of Comprehensive Education</th>
<th>Age when Differentiation Begins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>LME</td>
<td>Liberal</td>
<td>5*</td>
<td>12*</td>
<td>10*</td>
<td>15</td>
</tr>
<tr>
<td>U.S.</td>
<td>LME</td>
<td>Liberal</td>
<td>5*</td>
<td>11*</td>
<td>10*</td>
<td>15</td>
</tr>
<tr>
<td>UK</td>
<td>LME</td>
<td>Liberal</td>
<td>5</td>
<td>11 (+2 pt)</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Germany</td>
<td>CME</td>
<td>Conservative</td>
<td>6</td>
<td>9 (+3 pt)</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>France</td>
<td>CME</td>
<td>Conservative</td>
<td>6</td>
<td>10</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Netherlands</td>
<td>CME</td>
<td>Conservative</td>
<td>5</td>
<td>13</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Sweden</td>
<td>CME</td>
<td>Social Dem.</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Finland</td>
<td>CME</td>
<td>Social Dem.</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Norway</td>
<td>CME</td>
<td>Social Dem.</td>
<td>6</td>
<td>10</td>
<td>9</td>
<td>16</td>
</tr>
</tbody>
</table>

*Where variety by sub-national region, average is given
Referring again to Table 2, it is clear that results regarding the age at which tracking begins do not align with my expectations. Although my sample is small, seven out of nine states – encompassing both LMEs and CMES and all three welfare typologies – begin differentiation when students are 15 or 16 years old. There are only two notable outliers in this sample: Germany, where students are tracked as early at 10 years of age, and the Netherlands, where students around tracked around age 13. It is relevant to note that several states have increased the years of comprehensive education by moving the differentiation point later. One of the most dramatic reorganizations was the UK, which began tracking at 16 years instead of 11 years in the mid-1960s (Brunello et al 2004). In the 1980s, France stopped a practice of tracking students directly into vocational apprenticeships after two years of lower secondary school, and Germany extended the period of compulsory comprehensive education by a year in the 1970s (ibid.). If years of comprehensive (or differentiated) education matter more than the age at which students are tracked in terms of stratification, then age may not have as strong a relationship as previously expected to educational inequality or social stratification. Still, the fact that multiple nations across both LME-Liberal and CME-Conservative regimes have passed legislation to increase comprehensive education is an interesting in what it may signal. It would be interesting to investigate further, to understand what motivated each nation to lengthen the period of comprehensive studies.

Perhaps the most interesting observation regarded the timing and proportion of comprehensive education within each state and classification’s compulsory educational period. In the LMEs-Liberal welfare states, education began consistently earlier than in the CMEs-Conservative/Social Democratic regime states. In the Social Democratic states, compulsory education was consistently all (or nearly all) comprehensive; Liberal states typically mandated at least one year of education beyond the differentiation point; and Conservative states required the longest periods of compulsory education beyond the differentiation point.
1.3: Subsects III & IV - Number of Tracks & Proportion of Tracks by Type

The number and proportion of tracks by type is perhaps the most commonly studied relationship in scholarship pertaining to educational differentiation and VoC and/or the welfare state, with emphasis typically given to the comparative number of vocational and general or academic tracks (Sorensen 1970; Collins 1977; Manning & Pischke 2006; Busemeyer 2015). Although the definition of each track may be intuitive, it is worthwhile to reiterate them here. General curriculum is intended to impart skills and knowledge that students could apply in either further studies or vocational careers; university curriculum specifically aims to prepare students for higher (tertiary) non-vocational education; and vocational curriculum focuses on the development of skills related to a particular trade or industry (Collins 1977; Terwel 2005; Harris 2011).

Regarding macroeconomic structure, I expect to find fewer tracks – and specifically fewer vocational tracks – among LME states compared to CME countries, due to the lower engagement of the corporate sector in institutionalized education in LMEs, and the lower incentives in LMEs for both employers and employees to pursue specific training before employment. Conversely, I anticipate that in CMEs, where business interests and competition are more moderated by the state, there will be a higher number of tracks, with particular emphasis on vocational curriculum. Among welfare state typologies, I expect to find the fewest and most general tracks in Liberal states, where competition and market supply and demands are prominent, and the public benefits net is lowest; the most and most specific tracks in Conservative states, where maintenance of stratification and structure are high, and public benefits have a higher baseline; and a moderate number of tracks in the Social Democratic states, where government coordination is balanced by a strong emphasis on equitable educational access and student choice.
The findings for subsects three and four (illustrated in Table 3) partially align with my expectations. As predicted, LME-Liberal welfare states have both the lowest number of and least clearly defined tracks, while CME countries exhibit both the highest number of and most clearly differentiated tracks. In Canada, the UK, and the U.S., most secondary schools provide comprehensive education, and vocational training is significantly under-represented, although recent legislation in all three countries has indicated increasing emphasis on bolstering VET (Brunello et al 2004; Hanushek and Wößmann 2006; Verdugo 2014). Although secondary education is considered comprehensive, it should be understood that not all students in each LME-Liberal country participate in identical curriculum (within their respective nation). The label “mixed” in Table 3 denotes where variety in curriculum exists, but not necessarily in a way that separates students into easily distinguishable tracks. In each system, educational differentiation often occurs via “personalized learning” in the classroom (or “Universal Design for Learning”), or through “advanced” and “regular” subject tracks, which cover material at different speeds or with different expected outcomes (OECD TALS 2013; Ontario Public Service 2013; Schührer et al 2016). Even when curriculum is more distinctly differentiated by sorting students into different classrooms, differentiation frequently occurs on a subject-specific basis, making it feasible that a student could participate in the “advanced” track of one subject and the “regular” track of another. A recent case study of curricular differentiation in the U.S. suggests that even this more comprehensive approach has deeply stratifying effects, however that specific line of inquiry is nascent and requires further empirical research (Loveless 2016; Schührer et al 2016).

Unlike in LME-Liberal welfare states, educational differentiation in CME-Conservative/Social Democratic nations is, on the whole, much more clearly defined in terms of number and specificity of tracks. Germany, France, and the Netherlands (the Conservative states) each offer approximately three different tracks (some slight variation among the German Länder exists) – one of which explicitly prepares students for tertiary academic studies.
(university), one of the second of which focuses on vocational skills training (with some general foundational coursework required), and one of which provides a broader education which can be continued toward either higher education or a vocational career. In Sweden, Finland, and Norway (the Social Democratic states), there are clear vocational pathways, but they have higher general/academic requirements as compared to the CME-Conservative states. In Germany, France, the Netherlands, and Finland, students in separate curricular tracks are more frequently segregated into distinct schools, whereas students in Sweden and Norway frequently attend coursework in a more comprehensive setting (OECD Eurydice 2017). This is depicted in Table 3 by Sweden’s and Norway’s “single-track” system, which offer a high number of curricular “programs” within upper secondary education, at a 1:2 ratio of general/academic to vocational programs in Sweden and a 1:3 ratio of general/academic to vocational programs in Norway.

**Table 3: Number & Classification of Educational Track**

<table>
<thead>
<tr>
<th>Country</th>
<th>CME / LME</th>
<th>Welfare State Type</th>
<th>Number of Tracks by Type*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>LME</td>
<td>Liberal</td>
<td>1 (gen/mixed)</td>
</tr>
<tr>
<td>U.S.</td>
<td>LME</td>
<td>Liberal</td>
<td>1 (gen/mixed)</td>
</tr>
<tr>
<td>UK</td>
<td>LME</td>
<td>Liberal</td>
<td>1 (gen/mixed)</td>
</tr>
<tr>
<td>Germany</td>
<td>CME</td>
<td>Conservative</td>
<td>3 (1 gen, 1 uni, 1 voc)</td>
</tr>
<tr>
<td>France</td>
<td>CME</td>
<td>Conservative</td>
<td>3 (1 gen, 1 uni, 1 voc)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>CME</td>
<td>Conservative</td>
<td>3 (1 gen, 1 uni, 1 voc); (2 uni, 4 voc prog)</td>
</tr>
<tr>
<td>Sweden</td>
<td>CME</td>
<td>Social Dem.</td>
<td>1 (6 uni, 12 voc prog)</td>
</tr>
<tr>
<td>Finland</td>
<td>CME</td>
<td>Social Dem.</td>
<td>3 (1 gen, 2 voc)</td>
</tr>
<tr>
<td>Norway</td>
<td>CME</td>
<td>Social Dem.</td>
<td>1 (3 uni, 9 voc prog)</td>
</tr>
</tbody>
</table>

*(gen = general coursework; uni = university preparatory curriculum; voc = vocational preparatory coursework)*

1.4: Subsect V - Flexibility of Certificate by Track

A major factor in determining the “strictness” of educational differentiation is based on the flexibility that students have to transfer between tracks to attain different post-secondary outcomes (Sorensen 1970; Collins 1977; Lindberg 2007). Prior scholarship has sought to explore this factor in relation to path-dependency and stratification (Noelke and Kogan 2012; Bartl and Sackman 2014; Pfeffer 2015; Schührer et al 2016). Because “potential for mobility” during education is extremely difficult to define or measure objectively, in this analysis I instead focus on a variable with arguably less ambiguity – how strictly post-secondary outcomes are constrained based on a student’s secondary certification. To assess flexibility of certificate by track, I ask two questions: First, does the certification students receive at the end of each track (general, academic, or vocational) provide them with limited options for post-secondary education or work, or does it enable them to pursue multiple pathways? Second, does an efficient pathway (one not requiring lengthy additional education or training) exist for students to obtain qualifications that would enable them to pursue another pathway?

Because flexibility of degree or ease of re-certification would permit the greatest ability for individuals to respond to market demands or provide companies with a larger supply of potential employees, I expect to find that educational certification in the LME-Liberal welfare states is the least strict. By contrast, I expect to find the lowest flexibility in CME-Conservative welfare states, where corporate interests have been most highly institutionalized and structure and stratification are central. In CME-Social Democratic states, I anticipate moderate flexibility in certification, given the balance between demands of the coordinated market economy and Social Democratic emphasis on equality.

Results consistently show that where differentiation is strictest (as defined by variables III and IV), the secondary certification is least flexible, and where differentiation is least strict (same variables), the secondary certification is most flexible. This makes the LME-Liberal states
and CME-Social Democratic states most similar, and the CME-Conservative states least similar in some regards. Variation across this variable by country is most complex and so it is valuable to provide a more detailed description of each respective practice regarding the secondary degree.

The U.S. and Canada are perhaps most similar regarding entrance into post-secondary education or training. In both countries, students who successfully complete secondary education (receive passing grades) can apply to continue on to tertiary education or vocational training. Students on a vocational track that ended before completion of secondary education who wish to pursue tertiary education may seek an alternate secondary certification (community college or GED completion in the U.S. and CEGEP completion in Canada). This can typically be achieved in a short period of time (1-2 years) (U.S. Dept of Ed, CMEC). Notably, unlike in some other countries, acceptance into tertiary education after completion of a secondary qualification is not guaranteed. Individual universities and colleges have nearly complete autonomy in selecting which students to accept or decline. Tertiary institutions may also place additional requirements on students for acceptance, such as participation in standardized examinations.

In Germany, France, the UK, and the Netherlands, access to tertiary education is more or less guaranteed, following successful completion of a matriculation exam (OECD 2017). The names of the respective matriculation exam in each country (if applicable) is provided in Table 4. In Germany, France, and the Netherlands, students on the university track are being actively prepared for the matriculation exam throughout their curriculum, and students on the general or vocational track can take the exam, but likely require additional curricular support or time to prepare. In the UK, this is also true, but because education is less strictly differentiated, general or vocational track students may be better prepared to take the examination without significant additional education. In the Netherlands, individuals holding a secondary academic certification can choose to transfer to a vocational school. In France, students define the pathway of their
future by the type of baccalaureate certification they pursue – general, technical, or professional. In Germany, students are granted access to the university track by successfully completing the abitur, and students on a general or vocational track may take an examination for entrance to a general higher education school (Fachhochschule) or separate exams for vocational qualification.

In Sweden, Finland, and Norway, tertiary education is perhaps the most accessible. Students must pass coursework with certain curricular requirements, and must pass examinations throughout their studies, but, similar to the U.S. and Canada, there is no national matriculation test (except in Finland, but the matriculation exam is optional). In Norway and Finland, there is a separate post-secondary vocational qualification, whereas in Sweden there is only one certification which can be applied to pursue either tertiary academic or vocational further education.

Table 4: Flexibility of Secondary Degree or Certification

<table>
<thead>
<tr>
<th>Country</th>
<th>CME / LME</th>
<th>Welfare State Type</th>
<th>Secondary Degree Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>LME</td>
<td>Liberal</td>
<td>Flexible (diploma / curriculum req.)</td>
</tr>
<tr>
<td>U.S.</td>
<td>LME</td>
<td>Liberal</td>
<td>Flexible (diploma / GED / curriculum req.)</td>
</tr>
<tr>
<td>UK</td>
<td>LME</td>
<td>Liberal</td>
<td>Flexible (A-levels)</td>
</tr>
<tr>
<td>Germany</td>
<td>CME</td>
<td>Conservative</td>
<td>1 Inflexible; 2 Flexible (abitur)</td>
</tr>
<tr>
<td>France</td>
<td>CME</td>
<td>Conservative</td>
<td>Flexible (baccalaureate – 3 types)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>CME</td>
<td>Conservative</td>
<td>1 Inflexible; 2 Flexible (national/school exams)</td>
</tr>
<tr>
<td>Sweden</td>
<td>CME</td>
<td>Social Dem.</td>
<td>Flexible (diploma / curriculum req.)</td>
</tr>
<tr>
<td>Finland</td>
<td>CME</td>
<td>Social Dem.</td>
<td>Flexible (matriculation exam)</td>
</tr>
<tr>
<td>Norway</td>
<td>CME</td>
<td>Social Dem.</td>
<td>Flexible (diploma / curriculum req.)</td>
</tr>
</tbody>
</table>


As illustrated, even with relatively objective measures in place, it is difficult to compare the degree of flexibility in a state’s secondary certifications. Very broadly, the LME-Liberal and CME-Social Democratic systems share a tendency toward broader secondary certifications, and
greater flexibility for students. However, there is a significant divide between the accessibility of tertiary education, which is more competitive in Liberal states and more equitable in Social Democratic nations. Generally, the CME-Conservative nations are the most structured, but still offer some pathways for students to seek additional qualifications if they choose to pursue a post-secondary opportunity that they are not already tracked towards. How often this occurs in practice, however, is unclear.

1.5: Subsect VI - Primary Tracking Determinant

The final variable in this analysis focuses on what factors or actors are responsible for determining students’ track. This aspect of educational differentiation has received increasing attention in education and inequality scholarship. Although the breadth of research is still somewhat limited, findings generally suggest that methods of differentiation with less standardization, such as teacher or school recommendations, may exacerbate inequality (Dornbusch et al 1996, Harris 2011, Bartl and Sackman 2014, Hollstein 2016). However, research also indicate that standardized tests may also reinforce existing stratification in limiting access to higher education (Santelices and Wilson 2010; Hiss and Franks 2014; Reeves and Halikias 2017).

It is difficult to formulate a hypothesis regarding tracking determinants based on varieties of capitalism theory, but one may anticipate several trends based on welfare state typologies given their historical attitudes toward stratification and inequality. Considering their emphasis on retaining social structures and subsidiarity, I expect to find the least standardization in CME-Conservative welfare states. Conversely, given the emphasis on equity and equality, I might expect to find the greatest reliance on standardized measure in the Social Democratic nations. In Liberal states, it’s difficult to say whether standardized methods of tracking students might be considered as aiding or hindering efficiency and competition.
The findings, summarized in Table 5, outline how student tracking is determined in each sample country. Among the six variables used to define differentiation in this analysis, tracking determinant was the most difficult to classify for several reasons. First, this information was less standardized in cross-national reports, and so data was occasionally drawn from multiple sources, possibly resulting in a higher degree of inconsistency. Second, multiple factors are involved in the tracking decision in nearly every country, and most sources provided very little detail regarding which aspects were predominant in the tracking decision. This could be amended by reaching out to local experts in each country who have a personal knowledge of each system and the relative importance of each factor in driving differentiation decisions. Due to these shortcomings, I recommend analyzing these findings critically and assuming that further research is needed to validate my analysis.

The overarching trend showed similarities between the LME-Liberal welfare state nations and the CME-Social Democratic nations. In both groupings, tracking is decided based primarily on the results of standardized assessments (examinations or grades) and student choice, although LME-Liberal welfare states tend to favor choice, while CME-Social Democratic welfare nations tend to favor assessment. The one outlier to this trend is Sweden, where student choice is explicitly emphasized and honored, as long as minimum requirements were met (Eurydice 2016). The LME-Liberal states had the most ambiguity surrounding the decision and the highest variety among sub-regions (provinces, states, etc.), but generally the decision appears to be made based on grades, with a significant opportunity for students or families to override the tracking decision if they disagree with the recommended curricular path. In the CME-Conservative welfare regimes, results were more mixed. Typically, consideration of past academic performance (grades or assessments), and recommendations from teachers or school boards (in France, a “class council”; in Germany an academic report from the teacher; and in the Netherlands the Cito test and a report constructed by the head teacher and teaching staff) shapes recommendations for student tracking (Eurydice 2016).
While it would be helpful to have more data to support this analysis, the information collected here suggests that LME-Liberal nations do have a propensity for a more choice- or competition-based model, in which grades and individual choice are the key factors used to determine differentiation. Similarly, CME-Conservative states model the concept of subsidiarity, in naming teachers and schools the main decision-makers. CME-Social Democratic nations have the least consistency, using a mixture of more standardized assessments (exams and grades) alongside teacher or student input. In many ways Sweden seems closer to a LME-Liberal welfare state in this capacity, which is interesting.

Table 5: Determinant of Initial Student Tracking

<table>
<thead>
<tr>
<th>Country</th>
<th>CME / LME</th>
<th>Welfare State Type</th>
<th>Initial Tracking Determinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>LME</td>
<td>Liberal</td>
<td>Choice / Grades</td>
</tr>
<tr>
<td>U.S.</td>
<td>LME</td>
<td>Liberal</td>
<td>Choice / Grades / Teachers</td>
</tr>
<tr>
<td>UK</td>
<td>LME</td>
<td>Liberal</td>
<td>Choice / Grades</td>
</tr>
<tr>
<td>Germany</td>
<td>CME</td>
<td>Conservative</td>
<td>Teachers / Schools</td>
</tr>
<tr>
<td>France</td>
<td>CME</td>
<td>Conservative</td>
<td>Teachers / Schools</td>
</tr>
<tr>
<td>Netherlands</td>
<td>CME</td>
<td>Conservative</td>
<td>Assessment (school) / Teachers</td>
</tr>
<tr>
<td>Sweden</td>
<td>CME</td>
<td>Social Dem.</td>
<td>Choice / Grades</td>
</tr>
<tr>
<td>Finland</td>
<td>CME</td>
<td>Social Dem.</td>
<td>Assessment (school) / Teachers</td>
</tr>
<tr>
<td>Norway</td>
<td>CME</td>
<td>Social Dem.</td>
<td>Assessment (national) / Students</td>
</tr>
</tbody>
</table>


1.6: Attitudes toward Education across Varieties of Capitalism & Welfare State

The final exploration of this analysis regards state attitudes toward education and stratification or inequality. This question focuses less on each nation’s VoC classification, and more on its welfare state typology. In alignment with Esping-Andersen’s characterization of each regime, I expect to find that education in the Liberal regimes is posed as a resource to be leveraged by workers to improve competition, not a right, and for references to education and inequality to focus on individuals’ opportunity to promote themselves and enhance their quality.
of life through education. I predict that *Social Democratic* welfare states will take the opposite approach, emphasizing the role of education in reducing social inequality and posing education as a human right, the responsibility of which lies predominantly with the government and not the individual. This expectation is based on Esping-Andersen’s characterization of Social Democratic states as being particularly concerned with decreasing social inequity. Finally, I expect *Conservative* welfare regimes to combine these factors, speaking to education as a human right, because of their higher baseline of social benefits than Liberal states, but also to reiterate education’s role in supporting the state’s social and economic structure and stability.

To retain objectivity as much as possible, I drew from each state’s primary documents, including state constitutions and founding education documents. To supplement, I examined statements provided directly from national education departments to broader institutions like the OECD and European Commission. Given their complexity, findings are organized by brief country summaries, rather than a comparison chart.

*Canada*

The Canadian constitution establishes education as the legislative and administrative responsibility of each province or territory, with the stipulation that no region’s decisions in that realm may interfere with any citizen’s basic rights. Because of this structure, I consulted regional documents to get a sense of how education is framed. Across nearly every province and territory’s mission statements and charters, several themes recurred: individual potential, economic growth, and societal development. Only two provinces (Manitoba and Ontario) explicitly emphasized the responsibility of the state in ensuring education; most documents talked about education as a resource of which individuals could take advantage. New Brunswick alone spoke to the intention of education to support democratic values, and only Ontario directly addressed inequality as part of their recent ‘Achieving Excellence’ initiative.
United States

The U.S. constitution makes no reference to education; as such, education has historically been largely controlled at the individual state level. Due to practical constraints, I did not analyze the educational charters of each state and territories (although that would certainly be an interesting course for further research), but rather looked at major federal legislation regarding education. The Elementary and Secondary Education Act of 1965, signed into law by President Lyndon B. Johnson, was established “to provide all children significant opportunity to receive a fair, equitable, and high-quality education, and to close educational achievement gaps” (ESEA 1965). The spirit of that document has been reiterated throughout later versions of the act, most recently the No Child Left Behind Act of 2002 and the Every Student Succeeds Act of 2015. The U.S. Department of Education has put forth the following additional objectives: preparing individuals for citizenship and participation in the workforce, enhancing the competitiveness of the U.S. in a global market, and cultivating critical thinking skills.

United Kingdom

Because the UK has no codified constitution, I instead explored national education-specific legislation. The primary document regarding education is the Education Act, most recently ratified in 2011. The Education Act is mainly concerned with the organization of institutionalized education, but puts significant emphasis on the rights and responsibilities of the family to pursue their desired type of education. “The parent of every child of compulsory school age shall cause him to receive efficient full-time education suitable (a) to his age, ability and aptitude, and (b) to any special educational needs he may have, either by regular attendance at school or otherwise” (Education Act 2011). The UK Department for Education outlines three primary goals in their mission statement: the safety and wellbeing of all children, with opportunities to succeed “as good as those for any other child”; access to high-quality education
regardless of background; and preparedness to contribute to the UK economy and society (gov.uk).

**Germany**

The foundational values of German education are laid forth in two documents: the German constitution and the mission statement of the German Federal Ministry of Education and Research (BMBF). The constitution allocates educational decision-making to the individual states (Länder), and encourages coordination regarding assessment and recommendations (Bundestag 1949). The BMBF provides a much more comprehensive set of guidelines and objectives, with particular emphasis on the federal government’s shared responsibilities regarding vocational education, higher education, lifelong learning, and research initiatives. The BMBF also speaks directly in education and inequality: “One of our priority concerns is the establishment of social equality in education to ensure that a person’s background no longer determines his or her chances to get an education and that no talent is wasted” (BMBF 2017). It is perhaps unsurprising that even educational equity is framed in reference to the individual’s potential to contribute to the state.

**France**

The French constitution establishes “free, public, and secular” education as a duty of the state, which “guarantees equal access for children and adults to instruction, vocational training and culture” (Preamble 1946). The French Ministry for Education emphasizes the role of education in transmitting the national values, including democracy, citizenship, and a commitment to fight all forms of discrimination. Additionally, the mission statement focuses on training and development and the free access of educational resources. Above all, both the French constitution and educational mission statement repeatedly reiterate the central
importance of secularity, which must be both expressed and furthered through institutionalized education in the country.

Netherlands

In the Netherlands, Article 23 of the national constitution addresses citizens’ right to education. According to the constitution, education is the “constant concern of the Government”, although the constitution also strongly emphasizes the right of individuals to provide education (including private and religious education), so long as it follows the tenets of Dutch law. “People have the right to found schools and to provide teaching based on religious, ideological or educational beliefs” (Article 23). The Ministry of Education, Culture, and Science has a four-tiered mission statement, which focuses on the requirement that quality education is available to all, to prepare them for “personal independence and responsibility,” and on ensuring that “everyone has the opportunity to experience and enjoy culture” and that “teachers, artists, and scientists” have the resources and freedom to work (MECS 2017).

Sweden

The Swedish constitution includes four distinct mentions of education, two of which are particularly relevant. First, Ch. 1 (Basic Principles), Art. 2 states that in Sweden, the “personal, economic and cultural welfare of the private person shall be fundamental aims of public activity. In particular, it shall be incumbent upon the public institutions to secure the right to health, employment, housing and education, and to promote social care and social security.” Ch. 2 (Fundamental Rights & Freedoms), Art. 21 secures each child’s right to free, public, basic education and places the responsibility of higher education in the public sector. The second primary reference was drawn from the Swedish government’s statement to the European Commission on its fundamental educational principles and policies – namely that “all children
and youth must have access to equivalent education, regardless of gender, place of residence and social and financial background” (Eurydice 2016).

**Finland**

Section 16 of the Finnish constitution guarantees all citizens the “right to basic education free of charge”, and directs public authorities to provide “for everyone equal opportunity to receive other educational services in accordance with their ability and special needs, as well as the opportunity to develop themselves without being prevented by economic hardship” (Ministry of Justice 1999). The Finnish National Agency for Education further defines the key principles of the Finnish education system – quality, efficiency, equity, and internationalism – and states that its underlying objectives are to support lifelong learning and free education, as well as the “competitiveness and wellbeing” of the broader Finnish society (FNAE 2017). An interesting historical note in Finland’s Eurydice report notes that eliminating educational inequality between rural and urban areas was one of the earliest aims of the Finnish education system (2017).

**Norway**

Norway’s constitution – the second-oldest in the world – was founded on three basic principles: sovereignty of the people, the separation of powers, and human rights. Article 109 speaks directly to education as a basic human right, guaranteed by the constitution, and states that “education shall safeguard the individual’s abilities and needs, and promote respect for democracy, the rule of law and human rights” (Norwegian Constitution 1814). The Norwegian Ministry of Education and Research emphasizes the autonomy of local authorities in administering education among other basic welfare services, promotes education’s role in supporting the state’s economic and workforce needs, and reiterates that accessible and equitable education is “key to developing and refining a democratic culture” (Eurydice 2017).
Analysis

Overall, the attitudes toward education expressed by each nation’s founding charters and respective ministries for education were largely homogenous, and there was very little difference among nations that was consistent based on their variety of capitalism or welfare state typology. Every nation underscored four essential goals of institutional education: economic stability and growth, societal development, equal accessibility of basic education, and individual opportunity. The U.S., Germany, France, Finland, and Norway explicitly spoke to the role of education in addressing inequality.\(^3\)\(^4\) France and Norway alone spoke to education in relation to democratic values.\(^5\) This does not suggest that attitudes toward education do not differ significantly between countries, but homogeneity in primary documents suggests that another methodology may be more appropriate for pursuing this question.

\(^3\) And Ontario
\(^4\) While Sweden’s primary documents did not explicitly address education and inequality, they did reference that inequality is low in Sweden.
\(^5\) And New Brunswick
CHAPTER 3: DISCUSSION OF FINDINGS, IMPLICATIONS, & CONCLUDING REMARKS

Introduction

This section reviews the broad findings of this analysis, and discusses how well findings aligned with predictions. Potential implications of these findings are then considered.

1.1: Review of Purpose & Key Findings

The purpose of this analysis was to identify trends in educational differentiation, and whether they occur among states based on their respective variety of capitalism (LME or CME) and welfare state typology (Liberal, Conservative, or Social Democratic). Educational differentiation was defined by six variables that could be measured with relative impartiality. As a secondary consideration, this analysis asked whether attitudes toward education and inequality expressed by national constitutions and national bodies governing education might also be related to their VoC and welfare regime type.

Across my sample countries, LME states (which were also the Liberal welfare regimes) and do exhibit a relatively high degree of consistency. Comprehensive education begins earlier and is therefore longer in all LMEs than in any CME. Differentiation in each begins around age 15 (16 in the UK). Each of the three states offer a single “track” of education post-differentiation, in which students have a baseline of academic requirements, some of which can be pursued on “advanced” or “regular” tracks, and a relatively high degree of autonomy to choose additional coursework or vocational courses. In terms of academic credentials, the Canadian and U.S.
systems are most similar, offering a high school diploma based on passing grades and fulfillment of curricular requirements, or alternative secondary credentials. In each case, these credentials are sufficient to seek placement in post-secondary academic or vocational education, which is competitively selective. The UK model differs in its requirement that students complete A-level exams in order to pursue university studies. Finally, in terms of how students are differentiated, grades and student choice are predominant in all three LME-Liberal countries, with perhaps greater additional influence of teachers in the U.S. system.

Among all CME nations, there is strong variation in economic differentiation along the measured variables. However, CME-Social Democratic nations do exhibit a relatively high degree of consistency, particularly as compared to the LMEs. School start at age six in Finland and Norway, and age seven in Sweden – consistently later than in the LME-Liberal states. Additionally, and in part due to this later start, the length of comprehensive education is consistently shorter than in the LMEs, at 9 years instead of 10 or 11. Differentiation in the Social Democratic states in my sample consistently begins at age 16. In many ways, curricular pathways in CME-Social Democratic and LME-Liberal states are similar. Except in Finland, students typically all attend the same school, and choose from among academic or vocational curriculum. While the majority of options are general or academically focused in LME-Liberal nations, the CME-Social Democratic systems offer a 2:1 (Sweden, Finland) or 3:1 (Norway) mix of vocational and general-academic pathways. Additionally, these pathways are much more clearly defined in all of the Social Democratic states than in any of the LME-Liberal states, with the possible exception of the UK. Regarding secondary degree flexibility, Sweden and Norway are closer to the LME-Liberal model, based on a diploma obtained after achieving passing grades across set curricular requirements. In Finland, students take a matriculation exam at the end of upper secondary school. In Finland and Norway, students who achieve upper secondary school credentials can choose between further vocational or academic studies; in Sweden students must take vocational-specific exams to continue on that pathway. Finally, in terms of
tracking determinant, Sweden most resembles the LME-Liberal states, emphasizing student grades and choice in making the tracking decision, while Finland and Norway base the decision more heavily on standardized assessment (nationally determined in Norway) and either teacher (Finland) or student (Norway) input.

The CME-Conservative states have the greatest variety across all variables. Education begins in age 6 in France and Germany, age 5 in the Netherlands. Years of comprehensive education is highly variable, ranging from only 4 years in Germany, to 9 in France (8 in the Netherlands). Similarly, differentiation begins much earlier in Germany (age 10) and the Netherlands (age 13) than in either the LME-Liberal states or CME-Social Democratic states, whereas France (age 15) resembles the LME-Liberal nations. In terms of the number and types of tracks available, the three CME-Conservative states share some commonalities. Each systems offers three curricular tracks – one general/academic, one academic, and one vocational. In Germany (as in Finland), students typically attend separate institutions based on their curricular track, whereas in the Netherlands and France, students attend the same schools (similar to the LME-Liberal and CME-Social Democratic states) but choose between clearly differentiated curricular pathways (similar to Sweden and Norway). 6 Concerning flexibility of degree, in Germany, France, and the Netherlands (as in the UK and Finland), access to post-secondary education (vocational or academic) requires completion of a national examination. Access to tertiary education is particularly strict, and while students on the university track are explicitly prepared to take the university entrance exam, students in the general or vocational track are not, although they can choose to take it. Lastly, regarding tracking determinants, Germany and France rely heavily on a combination of teacher or school recommendations, and the Netherlands (as in Finland) also considers results on a national assessment (Cito test).

6 I have to triple-check on whether France is primarily a single school or separate schools
Overall, educational differentiation in the LME-Liberal states sampled, while not identical, shares the most commonalities and has the most distinct profile compared to the other two groupings. The CME-Social Democratic nations are second most closely-related, although there is less consistency in how differentiation decisions are made and the flexibility of secondary educational credentials. The CME-Conservative nations have the least consistency, both among themselves and in their differences compared to either of the other two groupings.

Results from my analysis of attitudes toward education and inequality among states was almost entirely inconclusive. All nations professed education’s role in serving their commitment to four core values: accessibility, individual opportunity, economic growth, and social development. There was no clear relationship observed between any state’s welfare typology or VoC, and its respective model for educational differentiation.

1.2: Considerations

There are a few important considerations regarding my findings and analysis. First, I analyzed a relatively small sample of countries. A more comprehensive follow-up analysis could contextualize these findings by measuring the same variables across a larger body of nations. Second, the degree to which education is centralized or decentralized varies significantly between nations, and was addressed only at the highest level in this analysis. Given the purpose of this paper and practical limitations, it was impossible to incorporate this variable, but doing so might shed light on additional variation or similarity in educational differentiation, particularly in countries where education is highly decentralized. Finally, as noted in subsect six on tracking determinant, this variable was less easily measurable, which may have led to an unclear or inaccurate assessment. Consulting experts from each respective nation could provide a more conclusive or comprehensive measurement of this variable.
1.3: Conclusion

In this analysis, I intended to study patterns of educational differentiation by national economic and welfare state characteristics. Broadly, my findings underscore the complexity of educational differentiation. Analysis suggests that, while consistency occurs across some variables of differentiation according to state economic and welfare state classification, proposing that distinct LME/CME or Liberal/Conservative/Social Democratic models education exist would likely be inaccurate in at least two ways: 1) By overlooking variations in educational differentiation that exists between countries within the same VoC or welfare state typology; 2) By exaggerating differences in educational differentiation between countries in different VoC or welfare regimes, which in reality share similarities.

These findings are valuable to the relevant body of research because they suggest a more precise way of studying educational differentiation in relation to broader economic or social policy environments. Additionally, in acknowledging variety within VoC and welfare state typologies, this analysis suggests that it may be more accurate to explore how individual aspects of educational differentiation relate to trends in socio-economic outcomes and stratification, and how these contribute to cross-national patterns. Future research might, for instance, ask whether demographic patterns occur among various student outcomes (assessment scores, enrollment by academic/general/vocational track, rate of secondary school completion, post-secondary enrollment, etc.), based on the way in which educational differentiation is structured or implemented. This could lead to important knowledge that could shape education policy, particularly that related to educational differentiation.

Educational differentiation is a central aspect of nearly every modern democracy’s education system. Its relationship to national economic and welfare state organization, however, still remains largely unexplored. This analysis was intended to further our knowledge of patterns
in educational differentiation, and its conclusions raise many more questions whose answers could improve our understanding of the complex relationship between state, education, and stratification.
<table>
<thead>
<tr>
<th>Country</th>
<th>CME / LME</th>
<th>Welfare State Type</th>
<th>Years of Compulsory Education</th>
<th>Years of Comprehensive Education</th>
<th>Age when Differentiation Begins</th>
<th>Number of Tracks by Type</th>
<th>Secondary Degree Flexibility</th>
<th>Initial Tracking Determinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>LME</td>
<td>Liberal</td>
<td>12*</td>
<td>10*</td>
<td>15</td>
<td>1 (gen/mixed)</td>
<td>Flexible (diploma / equiv. / curriculum req.)</td>
<td>Choice / Grades</td>
</tr>
<tr>
<td>U.S.</td>
<td>LME</td>
<td>Liberal</td>
<td>11*</td>
<td>10*</td>
<td>15</td>
<td>1 (gen/mixed)</td>
<td>Flexible (diploma / equiv. / curriculum req.)</td>
<td>Choice / Grades / Teachers</td>
</tr>
<tr>
<td>UK</td>
<td>LME</td>
<td>Liberal</td>
<td>11 (+2 pt)</td>
<td>11</td>
<td>16</td>
<td>1 (gen/mixed)</td>
<td>Flexible (A-levels)</td>
<td>Choice / Grades</td>
</tr>
<tr>
<td>Germany</td>
<td>CME</td>
<td>Conservative</td>
<td>9 (+3 pt)</td>
<td>4</td>
<td>10</td>
<td>3 (1 gen, 1 uni, 1 voc)</td>
<td>1 inflexible; 2 Flexible (abitur)</td>
<td>Teachers / Schools</td>
</tr>
<tr>
<td>France</td>
<td>CME</td>
<td>Conservative</td>
<td>10</td>
<td>9</td>
<td>15</td>
<td>3 (1 gen, 1 uni, 1 voc)</td>
<td>1 inflexible; 2 Flexible (abitur)</td>
<td>Teachers / Schools</td>
</tr>
<tr>
<td>Netherlands</td>
<td>CME</td>
<td>Conservative</td>
<td>13</td>
<td>8</td>
<td>13</td>
<td>3 (1 gen, 1 uni, 1 voc); (2 uni, 4 voc prog)</td>
<td>1 inflexible; 2 Flexible (national/school exams)</td>
<td>Assessment (school) / Teachers</td>
</tr>
<tr>
<td>Sweden</td>
<td>CME</td>
<td>Social Dem.</td>
<td>9</td>
<td>9</td>
<td>16</td>
<td>1 (6 uni, 12 voc prog)</td>
<td>Flexible (diploma / curriculum req.)</td>
<td>Students / Grades</td>
</tr>
<tr>
<td>Finland</td>
<td>CME</td>
<td>Social Dem.</td>
<td>9</td>
<td>9</td>
<td>16</td>
<td>3 (1 gen, 2 voc)</td>
<td>Flexible (matriculation exam)</td>
<td>Assessment (school) / Teachers</td>
</tr>
<tr>
<td>Norway</td>
<td>CME</td>
<td>Social Dem.</td>
<td>10</td>
<td>9</td>
<td>16</td>
<td>1 (3 uni, 9 voc prog)</td>
<td>Flexible (diploma / curriculum req.)</td>
<td>Assessment (national) / Students</td>
</tr>
</tbody>
</table>

*Where variety by sub-national region, average is given

REFERENCES


