Pay before they preach: the funding of study costs for Dutch Protestant and Catholic theology students, 1800-1880

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Abstract
It is unclear why several European countries were unable to match student numbers with labour market demand during the nineteenth century. The causes of this mismatch may be found in the organization of higher education. Drawing on a variety of sources, this paper examines how the organization of Dutch higher education affected enrolment and labour market patterns by comparing financial support mechanisms at public Protestant theology faculties and private Catholic colleges. Low tuition increased access, but incoherent student financing at the public universities caused a structural oversupply of vicars. The Catholic colleges instead selected students and applied grants to encourage graduation, consequently balancing students with labour market demand. This relative success of local colleges over national universities mirrors the primary education history literature on the benefits of local resource allocation.

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Introduction

Perhaps beginning with Adam Smith's treaty on the wealth of nations, the societal and economic importance of education has been generally acknowledged. Education stimulates economic growth through human capital formation, reduces inequality, and can bring positive externalities such as increased civic participation.[1] Because of these benefits Smith argued that the costs of education may be defrayed by society as a whole.[2] Nevertheless, not every dollar spent on education is a dollar spent well, and the history of education suggests that it equally mattered *how* education was funded.[3] Especially for primary education has been demonstrated that local distribution of funds explains rising enrolment levels both in nineteenth-century Europe and the United States.[4] By organizing education locally demand could be turned into increased funding, consequently lowering tuition and increasing enrolment.[5] Also in the Netherlands locally assigned funds allowed rising primary school enrolments during the nineteenth century, as town boards could identify how many schools were needed.[6]

It is not clear if the 'local funding argument' also applied to post-primary education. Contrary to primary education, enrolment here to some degree needed to be balanced with demand for skilled workers. Increased access, while improving chances

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[1] G.S. Becker, *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (Chicago, 3rd ed., 1993); S.O. Becker, E. Hornung, and L. Woessmann, 'Education and catch-up in the Industrial Revolution', *American Economic Journal Macroeconomics* 3.3 (2011), pp. 92–126; R.J. Barro, 'Human Capital and Growth', *The American Economic Review* , Vol. 91 (2001), 12–7; O. Galor and O. Moav, 'From to Human Capital Physical and the Accumulation: Inequality Process of Development', *The Review of Economic Studies* , Vol. 71 (2004), 1001–26; O. Galor and D.N. Weil, 'From Malthusian stagnation to modern growth', *The American Economic Review* , Vol. 89 (1999), 150–4; H. Kaelble, *Industrialisation and social inequality in 19th-century Europe* (Göttingen 1986); H. van Dijk and C.A. Mandemakers, 'Secondary education and social mobility at the turn of the century', *History of Education* 14.3 (1985), pp. 199–226; I. Maas and M.H.D. van Leeuwen, 'Industrialization and Intergenerational Mobility in Sweden', *Acta Sociologica* 45.3 (2002), pp. 179–94; C. Goldin and L.F. Katz, *The Race between Education and Technology* (Harvard, 2008); C. Stoddard, 'Why did Education Become Publicly Funded? Evidence from the Nineteenth-Century Growth of Public Primary Schooling in the United States', *The Journal of Economic History* , Vol. 69 (2009), 172–201; W.W. McMahon, *Higher Learning, Greater Good: The Private and Social Benefits of Higher Education* (Baltimore, 2009). Cf. D. Acemoglu and J. Angrist, 'How Large Are Human-Capital Externalities? Evidence from Compulsory Schooling Laws', *NBER/Macroeconomics Annual* , Vol. 15 (2000), 9–59; M. Bobba and D. Coviello, 'Weak instruments and weak identification , in estimating the effects of education , on democracy', *Economics Letters* , Vol. 96 (2007), 301–6. Cf. D. Acemoglu et al., 'From Education to Democracy?', *American Economic Review* , Vol. 95 (2004), 44–9.

[2] A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Pennsylvania State University, Electronic Classics Series (2005), 667-8.

[3] V. Carpentier, 'Public Expenditure on Education and Economic Growth in the USA in the Nineteenth and Twentieth Centuries in Comparative Perspective', *Paedagogica Historica* , Vol. 42 (2006), 683–706; R. Balfanz, 'Where money mattered: organizational and economic consequences of state public school expenditures in the United States: 1880-1940', *Interchange* , Vol. 28 (1997), 45–69.

[4] P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century* (Cambridge, 2004); C. Goldin, 'The Human-Capital Century and American Leadership: Virtues of the Past', *The Journal of Economic History* , Vol. 61 (2001), 263–92; Y.N. Soysal and D. Strang, 'Construction of the First Mass Education Systems in Nineteenth-Century Europe', *Sociology of Education* , Vol. 62 (1989), 277–88; J. Westberg, 'Stimulus or impediment? The impact of matching grants on the funding of elementary schools in Sweden during the nineteenth century', *Journal of the History of Education Society* , Vol. 42 (2013), 1–22.

[5] C. Goldin and L.F. Katz, 'The "virtues" of the past: education in the first hundred years of the new republic', *NBER Working Paper Series*, No. 9958 (2003).

[6] H. Knippenberg, *Deelname aan het lager onderwijs in Nederland gedurende de negentiende eeuw: een analyse van de landelijke ontwikkeling en van de regionale verschillen* (s.l., 1986).

for social betterment, could cause an oversupply of skilled workers, rising unemployment levels, and even social unrest.[7] Lowering access, for instance by adjusting entry requirements or tuition, might cause labour market shortages and reduce chances for social mobility.[8] Nevertheless, many countries struggled to match access to post-primary education with labour market demand during the nineteenth century. England, and to a lesser extent the Netherlands, may have lost economic prowess because technical schooling was poorly organized, causing an undersupply of skilled labourers.[9] Both in France and Germany cycles of graduates flooded the labour market, while in the Netherlands an excess number of medicine and especially theology students were educated.[10] England, on the other hand, prevented an oversupply of graduates because of its socially exclusive universities, thereby reducing chances for social mobility.[11]

Some evidence suggests that this mismatch between access to education and labour market demand rooted in the organization of education.[12] Although Titze suggested that cyclical oversupplies of nineteenth century graduates were caused by a time-lag between supply and demand inherent to higher education, many contemporaries in fact related the supply of European graduates to the costs of attending university.[13] In France, the government proved unable to tune grants in order

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[7] L. O'Boyle, 'The Problem of an Excess of Educated Men in Western Europe , 1800-1850', *The Journal of Modern History* , Vol. 42 (1970), 471–95; F. Ringer, *Education and society in modern Europe* (Bloomington 1979), 2, 50-1. For an overview of recent literature on historical social mobility see M.H.D. van Leeuwen and I. Maas, 'Historical Studies of Social Mobility and Stratification', *Annual Review of Sociology*, Vol. 36 (2010), 429–51.

[8] Cf. H. van der Velden, 'Overvloed en schaarste. De verspreiding van geneeskundige hulp in Nederland in de negentiende eeuw', *Gewina* , Vol. 19 (1996), 210–30.

[9] A. Green, 'Technical education and state formation in nineteenth-century England and France', *History of Education* 24 (1995), pp. 123–39; M. Sanderson, *Education and Economic Decline in Britain, 1870 to the 1990s* (Cambridge, 1999); J. Wolthuis, *Lower technical education in the Netherlands 1798-1993: the rise and fall of a subsystem* (1999).

[10] Ringer, 'Admission', in: W. Rüegg (ed.), A History of the university in Europe: Volume III, Universities in the nineteenth and early twentieth centuries (Cambridge 2004), 234, 234-5; C.E. MacClelland, *The German experience of professionalization: modern learned professions and their organizations from the early nineteenth century to the Hitler era* (Cambridge, 1991); H. Kaelbe, *Social mobility in the 19th and 20th centuries: Europe and America in comparative perspective* (Göttingen 1983), 59, 61; Jarausch, 'The social transformation of the university: the case of Prussia 1865-1914', *Journal of Social History*, Vol. 12 (1979), 615; P. van Rooden, *Religieuze regimes. Over godsdienst en maatschappij in Nederland, 1570-1990* (Amsterdam, 1996); H. van der Velden, 'Overvloed en schaarste. De verspreiding van geneeskundige hulp in Nederland in de negentiende eeuw', *Gewina*, Vol. 19 (1996), 210–30.

[11] R.D. Anderson, *Universities and Elites in Britain Since 1800* (Cambridge, 1995).

[12] Jarausch, 'The social transformation of the university', 613-4. F. Ringer, 'Admission', 234. Cf. K.H. Jarausch, 'Higher education and social change: some comparative perspectives', in: Ibid. (ed.), *The transformation of higher learning, 1860 - 1930: expansion, diversification, social opening and professionalization in England, Germany, Russia and the United States* (Stuttgart 1983), 17-8, 35-6. Edirisooriya demonstrated that low tuition was vital in ensuring demand for higher education in nineteenth-century United States; G. Edirisooriya, 'A market analysis of the latter half of the nineteenth-century American higher education sector', *History of Education* , Vol. 38 (2009), 115–32.

[13] H. Titze, 'Die zyklische Überproduktion von Akademikern im 19. und 20. Jahrhundert', *Geschichte und Gesellschaft*, Vol. 10 (1984), 92-121; Ibid., *Der Akademikerzyklus: historische Untersuchungen über die Wiederkehr von Überfüllung und Mangel in akademischen Karrieren* (Göttingen 1990); O'Boyle, 'Excess of Educated Men', 478, 485-6, 491.

to reduce the excess of medicine graduates.[14] The undersupply of English nineteenth-century engineers may have been related to the high costs of attending higher education.[15] Trends in Dutch students have also been linked to tuition levels and access requirements.[16]

Because the interchange between access to higher education and labour market demand has not been examined, we do not know why some education systems were better able to balance access with demand for graduates than others.[17] Ideally, answering this question would involve comparing two similar educations (in size and the type of occupation trained for), that were organized completely differently. Because of the increasing centralization of education in this period such cases are hard to find, but the nineteenth-century Netherlands allows such a comparison.

By comparing financial support mechanisms at public Protestant theology faculties and private Catholic colleges, this paper examines how the organization of Dutch higher education affected enrolment and labour market patterns.[18] The number of servants employed in both Churches converged during the nineteenth century, allowing to compare both labour markets. From 1800 Dutch Protestant and Catholic theology students were educated in centralized public and local private institutions respectively, presenting a rare opportunity to compare a similar education under a dissimilar institutional structure. Comparing both types of training will demonstrate how tuition and student funding policies influenced access to higher education and the labour market for these graduates.

The first section of the paper will briefly introduce the Protestant and Catholic training institutions. Sections II and III will explore tuition fees, financial support policies, and the social origin of Protestant and Catholic students respectively. Section IV links financial support for both groups to enrolment levels and labour market demand for vicars and priests.

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[14] G. Weisz, 'The Politics of Medical Professionalization in France, 1845-1848: The Organization of Medicine', *Journal of Social History* , Vol. 12 (1978), 3–29.

[15] A. Guagnini, 'Worlds apart: academic instruction and professional qualifications in the training of mechanical engineers in England, 1850-1914', in: R. Fox and A. Guagnini (eds.), *Education, Technology and Industrial Performance in Europe, 1850-1939* (Cambridge 1993), 16.

[16] G.T. Jensma and H. de Vries, *Veranderingen in het hoger onderwijs in Nederland tussen 1815 en 1940* (Hilversum, 1997); Velden, 'Overvloed en schaarste. De verspreiding van geneeskundige hulp in Nederland in de negentiende eeuw'; J. Roelevink, *Gedicteerd verleden: het onderwijs in de algemene geschiedenis aan de Universiteit te Utrecht, 1735-1839* (Amsterdam, 1986).

[17] A special section on 'education markets' in the *Social Science History* Vol. 32.1 (2008) suggested that a supply and demand framework can give more insight into the development of education systems.

[18] Rooden and Vree have examined labour market patterns for Dutch Protestant theology graduates. Rooden adhered to the cyclical model provided by Titze, and did not link this to the organization of higher education. Vree argued that the oversupply was structural instead, also not systematically linking this to the organization of higher education; Rooden, *Religieuze regimes. Over godsdienst en maatschappij in Nederland, 1570-1990*; J. Vree, 'Overschot op de Nederlandse kandidatenmarkt: een bron van overzeese predikanten, hulppredikers, enz. (1829-1872)', *Documentatieblad voor de Nederlandse kerkgeschiedenis na 1800* , Vol. 30 (2007), 17–52.

I. Studying towards becoming a Protestant vicar and Catholic priest

In 1815 the newly installed Dutch government introduced a decree to regulate the Dutch universities, which hitherto had been independent urban institutions.[19] Several universities were closed and only the universities of Utrecht, Leiden and Groningen remained, together with some athenaeums.[20] Although it had been common practice before, becoming a Protestant vicar now officially required a university degree in theology. To be admitted to university a student had to pass an entry exam or submit a testimony from a Latin school or gymnasium. Since the universities were now subject to government regulation, everyone passing this entrance exam or having a testimony had to be accepted to university. The decree further stipulated an official course of study for theology students, beginning with four years of attending the arts faculty and being completed with another two years at the faculty of theology. Only after obtaining a bachelor's degree (called a candidate) could aspiring vicars take the vicar's exam at a local Protestant church board in order to qualify for a church position. Most graduates seem to have taken their vicar's exam between the ages of 23 and 25.[21]

Before 1815 theology students had been exempt from paying tuition fees because of the relatively low social standing of these students and because training Protestant vicars was considered a necessity in the Protestant (or Reformed) Dutch Republic since the Revolt against Catholic Spain.[22] With the official separation of Church and state after the Napoleonic period this privileged position had become untenable in theory. All university students now had to pay tuition, including the Protestant theology students. The costs of studying theology were further changed from time to time, but the study trajectory remained largely the same for the remainder of the century.[23]

Because Calvinism was the privileged confession during the early modern period, Dutch universities offered no training in Catholic theology. Catholic students wanting to study theology did so at foreign universities where Dutch colleges were set up for the purpose, for instance at Leuven or Cologne.[24] The same proclamation of freedom of religion that had caused the introduction of tuition fees for Protestant theology students after 1795 allowed the establishment of Catholic training institutions within the

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[19] *Organiek Besluit*. Original decree in *Staatsblad* , August 2, 1815, no. 14.

[20] Athenaeums were comparable to universities but could not grant degrees; G.T. Jensma and H. de Vries, *Veranderingen in het hoger onderwijs in Nederland tussen 1815 en 1940* (Hilversum 1997), chapter 6.

[21] Based on a sample of 50 theology graduates between 1813-50; J. Vree; 'Lijst van (voornamelijk hervormde en lutherse) predikanten, hulppredikers, kandidaten, proponenten en theologanten', http://wwwold.vu.nl/hdc /Hulppredikers.pdf (last retrieved 2 September 2013). The average age of enrolment of Utrecht theology students between 1825 and 1836 was eighteen years, and only four per cent of students was 26 or older; Het Utrechts Archief (HUA), Utrecht, Universiteit Utrecht: faculteit Godgeleerdheid, inv. 294.

[22] M. Wingens, 'The Motives for creating Institutions of Higher Education in the Dutch Republic during its formative Years (1574-1648)', *Paedagogica Historica*, Vol. 34 (1998), 443-56.

[23] A. de Lange, ''Staatsrechtelijk geknutsel' : de regeling van de predikantsopleiding in Nederland door de overheid in de negentiende eeuw', *Documentatieblad voor de Nederlandse kerkgeschiedenis na 1800*, Vol. 24, No. 54 (2001), 28-58.

[24] J.F. Vregt, 'De vroegere collegiën of seminariën tot opleiding van geestelijken voor de Hollandse missie', *Bijdragen voor de geschiedenis van het bisdom van Haarlem*, Vol. 8 (1880), 1-379; L.J. Rogier, *Geschiedenis van het katholicisme in Noord-Nederland in de 16e en de 17e eeuw*, Vol. I (Amsterdam 1947), 238, 383.

Netherlands.[25] The full training course consisted of six years at a *kleinseminarie* or minor college which concentrated on philosophy, followed by four to six years at a *grootseminarie* or major college, which concentrated on theology.[26] Although legally not institutions of higher education, in function all major colleges provided post-secondary teaching. On leaving major college students were normally ordained as priests and then became chaplains (assistant priest) in the college's church district.[27] Once a chaplain was deemed capable enough and a position was available he could be promoted to parish priest. Most Catholic theology students received their ordination between the ages of 23 and 26.[28]

All Dutch Catholic church district eventually set up minor and major colleges and bore the costs. The latter were first founded in Breda and Den Bosch in 1798, followed a year later by major colleges at Warmond and Heerenberg, set up by the missionary area of the *Hollandsche Missie*, roughly the part of the Netherlands north the main rivers.[29] Heerenberg closed in 1841, leaving Warmond as the only major college in the north until 1856.[30] With the re-establishment of a Dutch bishopric in 1853, the major college of Rijsenburg opened in 1856 to train the clergy for the newly established church district of Utrecht. The major college of Den Bosch provided the training of Den Bosch clergy throughout the nineteenth century, plus clergy for the districts of Grave-Nijmegen and Ravenstein-Megen.[31] In the north the minor colleges of Hageveld and Culemborg prepared for the major colleges. In the south minor colleges of Beekvliet and Oudenbosch prepared for major college.[32]

The individual Dutch Catholic Church districts (vicariates or dioceses) operated relatively independently from each other and therefore also regulated the training of their local clergy independently.[33] The organization of the colleges, such as finances,

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[25] T. Clemens, 'Een onbedoeld kind van de revolutie: veranderingen in de opleiding van priesters voor de rooms-katholieke kerk van de Noordelijke Nederlanden na 1795 ', *Trajecta*, Vol. 3 (1994), 307-27; J.Y.H.A. Jacobs, ''De opgang tot het altaar van God': de structuur van de priesteropleiding in Nederland vóór en ná 1853', *Documentatieblad voor de Nederlandse kerkgeschiedenis na 1800*, Vol. 24, No. 54 (2001), 15; F.G.M. Broeyer, 'De predikantsopleiding in de negentiende eeuw', in: D.T. Kuiper (ed.), *Predikant in Nederland (1800 tot heden)*: special issue *Jaarboek voor de geschiedenis van het Nederlands Protestantisme na 1800*, Vol. 5 (1995), 78.

[26] The grand seminaries of Haarlem and Den Bosch graduation typically required six years of studying, at Utrecht only four. Time spent at each grand seminary seems to have depended on the distribution of philosophy classes over the small and grand seminary; Jacobs, ''De opgang'', 5.

[27] Catholic religious orders also trained priests. These regular clergy were rarely employed by the Dutch dioceses and are therefore left out of consideration. On the regular clergy see M.E. Monteiro, *Gods predikers: Dominicanen in Nederland* (1795-2000) (Hilversum, 2008); T.A.M. van den Beld, *'Katholieke jongens uit den beschaafden stand'. Het Jezuïeteninternaat te Katwijk aan den Rijn, Den Haag en Zeist (1831 -1960) en katholiek Nederland* (Nijmegen 2009).

[28] Diocesan archive of Den Bosch (DADB), inv. 492. The archives are no longer accessible.

[29] Clemens, 'Een onbedoeld kind van de revolutie', 320-3.

[30] L.J. Rogier and N. de Rooy, *In vrijheid herboren. Katholiek Nederland 1853-1953* (Den Haag 1953), 185.

[31] Jacobs, ''De opgang'', 10-11.

[32] Jacobs, ''De opgang'', 14-17. The small seminary of Culemborg was closed between 1825 and 1840; T.A.M. van den Beld, *'Katholieke jongens uit den beschaafden stand': het Jezuïteninternaat te Katwijk aan den Rijn, Den Haag en Zeist [1831-1960] en katholiek Nederland* (Nijmegen 2009), 56.

[33] J. Jacobs, 'Van losse hulptroepen naar een welgeordend leger: over de samenwerking tussen de priester-religieuzen bij de wederopbouw van katholiek Nederland na 1853', in: G.N.M. Vis and W. Janse (eds.), *Staf en*

enrolment, and day-to-day operations, were in the hands of the college directors. The government forced some small colleges to close between 1825 and 1830 because it wanted Catholics to attend Leuven university, but did not interfere with teaching at the Catholic colleges during the rest of the nineteenth century.[34]

II. Financing Protestant theology students

Admissions and grant policy of Protestant and Catholic higher education institutions differed markedly. On the Protestant side a multitude of actors involved, the government, the church, and numerous grant foundations, prevented the formulation of a coherent student financing policy tailored to job market needs, but it did significantly lower study costs for Protestant students and boosted student numbers.

The government's 1815 decree had raised study costs of Protestant theology students by requiring them to attend university for around six years with tuition fees of between 100 and 180 guilders a year.[35] Firm checks on payment rendered avoiding these fees difficult.[36] However, studying theology was generally regarded as socially less prestigious than studying law or medicine, meaning that the elite traditionally refrained from studying theology.[37] Both Catholic and Protestant theology were therefore by necessity one of the first types of higher education accessible for relatively lower social groups in order to ensure sufficient graduates for the Dutch Reformed and Catholic Churches.[38] As a result theology students had always come from relatively lower social classes than other students. Between 1801-1811 already most public grants were given to theology students, and many Protestant theology students had resorted to grants during the seventeenth and eighteenth centuries as well.[39] The increase in tuition after 1815 consequently presented many of them with a financing problem.[40] Although the Protestant Church was no longer the privileged church, its ties to the government remained close.[41] It continued to be largely publicly financed through a separate

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storm: het herstel van de bisschoppelijke hiërarchie in Nederland in 1853: actie en reactie (Hilversum 2002), 219; Rogier and de Rooy, *In vrijheid herboren*, 180.

[34] Jacobs, ''De opgang'', 13, 19-27. Only a couple of students eventually visited the philosophical college at Leuven; *Handboekje voor de zaken der Roomsch-katholijke eeredienst* (1848), 5. Few Dutch students attended Theology faculty of Leuven during the nineteenth century; L. Kenis, 'De theologische faculteit the Leuven in de negentiende eeuw. Een overzicht van haar ontwikkeling en haar relatie met de priesteropleiding in Nederland', *Trajecta*, Vol. 9 (2000), 206-208, 221-224.

[35] W. Otterspeer, *De wiekslag van hun geest: de Leidse universiteit in de negentiende eeuw* (Den Haag 1992), 430-1; Roelevink,*Gedicteerd verleden*, 136-7.

[36] Roelevink, *Gedicteerd verleden*, 136.

[37] Jarausch, 'Higher education and social change', 25, 28, 30; D.J. Bos, *In dienst van het Koninkrijk: beroeps-ontwikkeling van hervormde predikanten in negentiende-eeuws Nederland* (Amsterdam 1999) 182-3; M. Zoeteman-van Pelt, *De studentenpopulatie van de Leidse universiteit, 1575-1812: 'een volk op zyn Siams gekleet eenige mylen van Den Haag woonende'* (Leiden 2011), 307-8; P.A.J. Caljé, *Student, universiteit en samenleving: de Groningse universiteit in de negentiende eeuw* (Hilversum 2009), 221, 336.

[38] Ringer, 'Admission', 250-1.

[39] F. C. Dufour-Briet, *De kerkelijke en maatschappelijke achtergronden van de 87 studenten die in de periode 1801-1811 uit 's lands fonds een studiebeurs ontvingen voor de Leidse Universiteit* (s.n., 1973); *Handelingen van de Algemeene Synode der Christelijke Hervormde Kerk in het Koningrijk der Nederlanden* (1819), 17 (hereafter *Handelingen*); Zoeteman-van Pelt, *De studentenpopulatie van de Leidse universiteit*, 166-73.

[40] *Letterkundig magazijn van wetenschap, kunst en smaak (uittreksels en beoordelingen)*, No. 2 (1819), 78.

[41] Bos, *In dienst van het koninkrijk*, 140-2.

government department.[42] Thus, when the Protestant Church feared that the new tuition fees would present a problem for the future supply of vicars, it seemed natural to call upon the government to relieve the financial difficulties of Protestant theology students.[43]

After examining theology student numbers the Protestant Church concluded in 1819 that high costs prevented students from enrolling in the Arts and Theology faculties at the three Dutch universities.[44] The Church therefore requested the government to allow more freedom in study choice and in particular asked to lower tuition fees and raise public study grants.[45] The 1815 decree had installed about twenty public grants for theology students set at 200 or 300 guilders a year, depending on the university. Since the seventeenth century sons of vicars could obtain an additional special allowance of 100 guilders a year, called academy money, and the Church asked for this allowance, which had fallen into disuse, to be reinstated and raised.

The multiple appeals by Reformed Church's appeal were eventually successful and illustrative of the still close ties between the Reformed Church and the government. Almost all the requests were granted in 1820.[46] Several theology courses were made optional instead of compulsory. Most importantly, tuition fees for theology students were abolished completely. Although public grants were not raised, the university boards were given permission to let public grant students receive private grants of over 100 guilders as well, which had previously been prohibited. Last, the academy money was raised from 100 to 200 guilders per year and was awarded to all sons of vicars. As a result, study costs for theology students between 1820 and 1836 dropped dramatically, notably for sons of vicars who received an additional 200 guilders a year.

This widening of the access to financial support combined with other forms of support boosted the number of theology students.[47] In 1836 the government reintroduced tuition fees and cut public grants, followed by the abolition of all grants in 1842, though a few were reinstalled in 1853.[48] Despite these policy changes financial support did not disappear altogether. Various other sources of financial support remained open to Protestant students throughout the century, easing access to the theology faculties.

First, sons of vicars opting to study theology continued to receive the special 200 guilders grant. Second, the government managed so-called vicariate funds, Catholic property confiscated during the Dutch Revolt, the yields of which were traditionally

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[42] W. H. den Ouden, *De ontknoping van de zilveren koorde. De geschiedenis van de rijkstraktementen in de Nederlandse Hervormde kerk* (Zoetermeer 2004).
[43] For references to the Church deliberations on high study costs for theology students after 1815 see P. van Rooden, 'Van geestelijke stand naar beroepsgroep. De professionalisering van de Nederlandse predikant, 1625-1874', *Tijdschrift voor Sociale Geschiedenis*, Vol. 17 (1991), 370-1.
[44] *Handelingen* (1819), 16-44, 88-90.
[45] The 1815 decree had installed about twenty public grants for theology students set at fl. 300 or fl. 200 a year, depending on the university the student enrolled in.
[46] *Koninklijk Besluit*, November 15, 1820, no. 29.
[47] Otterspeer, *De wiekslag van hun geest*, 430.
[48] Otterspeer, *De wiekslag van hun geest*, 429-30.

awarded as student grants to Protestant theology students.[49] A sample of the records suggests that around 30 per cent of these funds were still awarded to Protestant theology students during the nineteenth century, totalling about 4,000 guilders a year.[50] Third, in addition to the public funds many private grant foundations existed. Nearly all of these private foundations targeted Protestant theology students. Information drawn from various sources provide an estimate of the level and number of different grants. The results are given in Table 1, together with the number of Protestant theology students and the number of vicars' sons receiving academy money.

From 1820 to 1870 the number of available private and public grants rose from 72 to 123, with the result that, at certain times, almost every student could get one. For instance, if in 1840 sons of vicars did not receive other grants than the academy money, nearly all remaining 102 students could have obtained a grant. Even when the grant/student ratio was at its lowest, for example around 1830, study grants averaging 191 guilders were still available for more than half of the student population. On top of that, around forty per cent of Protestant theology students during the nineteenth century were sons of vicars and thus received an annual allowance of 200 guilders. These estimations are probably an under bound estimate. During a debate on 11 December 1835, the member of parliament Willem Schimmelpenninck van der Oije put financial support for theology students at 400 guilders per student annually.[51] Although he may have been exaggerating because he argued for a restoration of tuition, anecdotal evidence in newspapers suggests that especially the number of private grants could well have been higher.[52]

[49] Rogier, *Geschiedenis van het katholicisme*, 530.
[50] Records of 1847-48 and 1871-72; Nationaal Archief (NA), BiZa / Hoger Onderwijs, inv. 897, inv. 898; *Kamerstuk Tweede Kamer 1850-1851, kamerstuknummer II ondernummer 100: Begrooting van de staats-uitgaven voor het dienstjaar 1851*.
[51] *Handelingen der Staten Generaal*, December 11 (1835), 86.
[52] Vacant theology grants were sometimes publicly announced, for example in the *Opregte Haarlemsche Courant* of July 28, 1857. This grant could not be included in the annual lists used to reconstruct Table 1 because sources are lacking, which may apply to more private grants.

Table 1. Estimate of financial support for Protestant theology students.

Year	Private grants (fl.)	Public grants (fl.)	Vicariate funds (fl.)	Total (fl.)	Average grant (fl.)	Number of grants	Students with academy money	Total theology students	All grants/ students
1820	6,030	5,000	4,000	15,030	209	72	83	163	0.95
1830	9,300	5,000	4,000	18,300	191	96	208	561	0.54
1840	10,380	3,700	4,000	18,080	199	91	140	242	0.95
1850	10,760	0	4,000	14,760	152	97	114	323	0.65
1860	13,660	3,000	4,000	20,660	178	116	170	434	0.66
1870	13,290	3,000	4,000	20,290	165	123	116	283	0.84

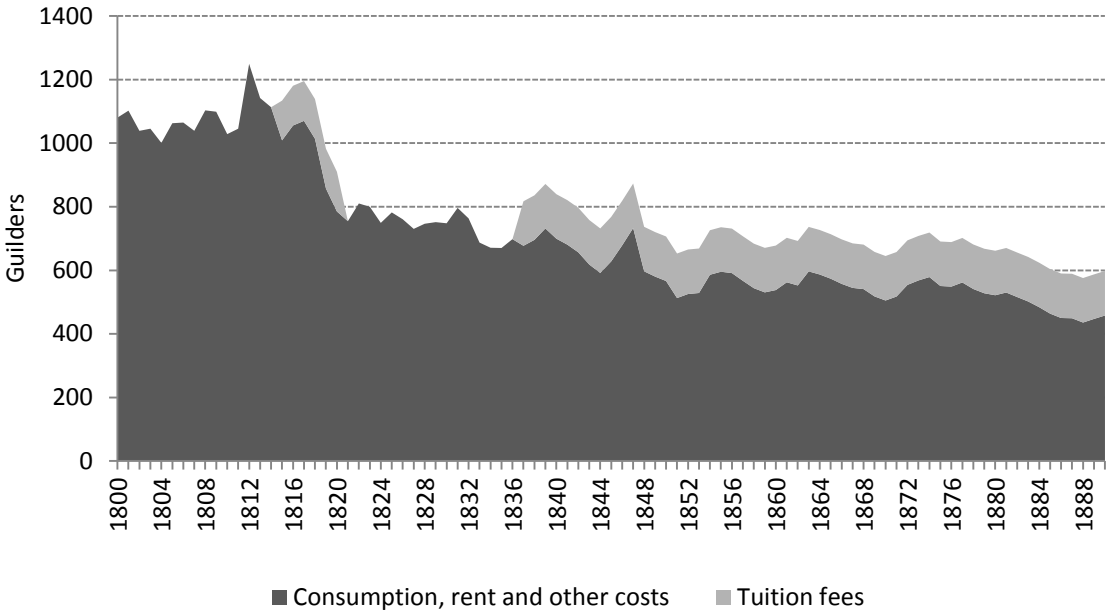
Notes: Student numbers between 1815-1850 are absent in the literature and are estimated by multiplying the average length of study for theology students at Utrecht (1815-1849) and Leiden (1817-1832), with annually passed vicar exams at the Protestant Church. Since dropping out was uncommon and job opportunities outside the church limited, there is a strong correlation between the number of theology students at Utrecht and Leiden between 1817-1832 and passed vicar exams (n=16, r = .80, sig.= < .01).[53] This measure also captures theology students at athenaeums because these had to register at a university. The academy money for 1838-39, 1841-44, 1846, 1854-59, 1861-69 is interpolated, and 1870-77 is based on the assumption that academy money grants of the classis of Utrecht during 1870-77 represented 8,6 per cent of all academy money, which was the average share of this classis in total academy money disbursed for the years 1847-52 and 1859.

Source: Public grants and vicariate funds: see text. Private grants: Nationaal Archief (NA), The Hague, BiZa, 1813-1848, inv. 4836 (no. 52); NA, BiZa / OKW, inv. 260 (no. 59), inv. 548 (no. 55), inv. 731 (no. 103), inv. 732 (no. 163); Het Utrechts Archief (HUA), Universiteit Utrecht: faculteit Godgeleerdheid, inv. 3, 707, 714, 715, 758, 767-779. Academy money: NA, Hervormde Erediensten, 1815-1870, inv. 1681, inv. 1736; *Verslag der Commissie tot wijziging van hoofdstuk VI der Staatsbegrooting van 1850 (Kindergelden en Pensioenen), uitgebragt in de zitting van den 1sten Juli 1851*; *Wijziging van Hoofdstuk VI der Staatsbegrooting (Kindergelden enz.)*, 1852, 1853; HUA, Nederlandse hervormde classis Utrecht, inv. 138-141. Student numbers: for 1815-1819: *Handelingen* (1819). For 1820-1845: HUA, Archief Rijksuniversiteit Utrecht, senaat en rector, inv. 506, inv. 507; HUA, Universiteit Utrecht: faculteit Godgeleerdheid, inv. 304; Universiteit Leiden, Archief Senaat en Faculteiten, inv. 192-207; Universiteit Leiden, Archieven van de Faculteiten, inv. 20; *Nederlandse "alba studiosorum" en "promotorum": in druk verschenen naamlijsten van Nederlandse studenten en gepromoveerden* (Den Haag 2007). For 1850-70: Jensma and de Vries, *Veranderingen in het hoger onderwijs*, 132-133. Number of completed vicar exams from *Handelingen* 1819-1857.

[53] P.A.J. Caljé, 'Groningse studentenaantallen in de negentiende eeuw: vertekening en correctie', 5, http://www.fdcw.unimaas.nl/staff/files/users/152/De%20correctie%20van%20de%20Groningse%20studentenaantallen%20in%20de%20negentiende%20eeuw.pdf (last retrieved 27-8-2013).

Now the number of grants matters less than their impact on total study costs. Information from a number of account books allows us to estimate study costs for theology students. As it turns out study grants did indeed cover a considerable share of costs. Since consumption formed a large part of a students' expenses, a cost of living index is used to make a time-series of Protestant theology study costs. The index gives a relatively large weight to rent, another major expenditure of students. Graph 1 shows that study costs fell in line with overall prices after 1815. This decline lowered study costs by 25 per cent, begging the question if the 1820 abolition of tuition fees was really necessary to raise enrolment. Study costs between 1820 and 1836 totalled around 750 guilders per year. Although the reintroduction of tuition fees in 1836 temporary raised study costs, this was offset by a further price fall around 1848. It appears that studying theology after 1820 rarely cost more than 800 guilders a year.[54] This was comparable to the amount eighteenth-century students paid, and challenges the claim by Roelevink that a nineteenth-century theology study was overpriced.[55]

Graph 1. Annual study costs for Protestant theology students (estimate).



Notes: The average annual study minus tuition fees of Pieter Teding van Berkhout (enrolled in 1818-21), Nicolaas Christiaan Kist (enrolled in 1811-15), and eleven theology students of the 'Vereniging voor Interne Zending' at the university of Utrecht (enrolled in 1874-77) are deflated with the 'stylized derived elite' cost of living index of the IISH, after which they were combined into an average. Teding van Berkhout studied law, but his study costs are used to control for the relatively low study costs of Kist. Tuition fees are set at fl. 125 between 1815-1820 and fl. 140 between 1837-1890.[56]

Source: NA, Archief Familie Teding van Berkhout 3.20.59, inv. 2160; NA, Kist 3.20.69, inv. 149; HUA, Hervormd opleidingscentrum Ruimzicht te Doetinchem 584-1, inv. 268. Cost of living from the 'stylized derived elite index'; http://www.iisg.nl/hpw/brannex.php (last retrieved 2-9-2013).

[54] Cf. Caljé, *Student, universiteit en samenleving*, 334.
[55] Zoeteman-van Pelt, *De studentenpopulatie van de Leidse universiteit*, 133-4; Roelevink, *Gedicteerd verleden*.
[56] Otterspeer, *De wiekslag van hun geest*, 431-2; Caljé, *Student, universiteit en samenleving*, 332-3.

As a result, receiving one grant already lowered private study costs expenditure by approximately 25 per cent. Moreover, as Table 1 demonstrated, more than half to nearly all theology students could have received a grant. In total, the grant market financed around one-fifth of total study costs for theology students during the nineteenth century. Such levels of financial support were unknown to any other field of study. Archival research confirms that almost no grants existed for non-theology students in this period. Law or medicine students or their parents had to pay all study costs themselves, presumably making access to these studies much more difficult for middle to lower income groups.

Looking at the social origin of university students can highlight the degree to which the widely available support broadened access and stimulated enrolment at the faculties of theology of the Dutch universities. Otterspeer has suggested that that the large presence of middle-class students at theology faculties can only be explained by 'a shadowy network of study grants and family support'.[57] Consequently, in the absence of study grants and measures to reduce tuition, access to the other faculties at all three Dutch universities should have been predominantly reserved to students from higher social groups. And indeed, students at the law en medicine faculties at all three Dutch universities structurally originated from higher classes than theology students.[58] At the Leiden faculty of law almost 60 per cent of students originated from the highest classes between 1815 and 1875, compared to only ten per cent at the faculty of theology.[59] It appears, then, that the combination of low tuition between 1820-36 and the structural availability of many grants made theology the only field of higher education accessible for sons from less affluent middle-class families.[60]

However, the Leiden data is a sample of students from nearby towns, and therefore may overstate the dominance of middle and lower classes.[61] Lists of the university of Utrecht give more insight into the occupational status of parents of theology students in 1825 and 1835. By using the Hisclass codification Utrecht theology students of these lists were grouped on socio-economic origin.[62] Table 2 gives the socio-economic origin of all Utrecht theology students during college years 1825-26 and 1835-36. Of the 370 listed theology students, 39 were of foreign origin. These are excluded because they usually could not apply for private and public grants and because these students were not educated for the Dutch Protestant Church. Vicar's sons are grouped to illustrate their

[57] Otterspeer, *De wiekslag van hun geest*, 432.
[58] Wingelaar, *Studeren in de negentiende eeuw: een onderzoek naar het hoger onderwijs en met name naar de studenten aan de Utrechtse universiteit in de periode 1815-1877* (Utrecht 1989), 69; Caljé seems to overstate the social origin of Groningen theology students because he includes vicars in this group, which is below demonstrated to have been a direct effect of the special grant awarded to vicars' sons; Caljé, *Student, universiteit en samenleving*, 248.
[59] Otterspeer, *De wiekslag van hun geest*, 420.
[60] Cf. W.D. Rubinstein, 'Education and the Social Origins of British Élites 1880-1970', *Past & Present*, Vol. 112 (1986), 176-8.
[61] A.J.P. Maas, 'Over zwoegers en zeloten : J.D. van der Waals en veranderingen in het studentenleven, 1877-1900', *Gewina*, Vol. 22 (1999), 77.
[62] M.H.D. van Leeuwen and I. Maas, *Hisclass. A historical international social class scheme* (Leuven 2011).

large presence at the faculty and because Hisclass seems to overstate the (economic) status of vicars by placing them in class two.[63]

Table 2. Occupational status of fathers of all Dutch theology students at Utrecht in 1825 and 1835.

Class	Description	N	%
High	Hisclass 1 to 3	62	19
Middle	Hisclass 4 to 7	81	24
Low	Hisclass 8 to 12	8	2
Vicars	Vicars of the Dutch Reformed Church	93	28
Other	Unknown, widows, without employment, deceased	87	26
Total		331	100

Source: HUA, Universiteit Utrecht: faculteit Godgeleerdheid 1352, inv. 294.

The results confirm the data of the Leiden students but also seem to point out the significance of the special grants for vicar's sons. Given the fact that all these students received 200 guilders strong presence at the faculty does not surprise. Nineteen per cent of theology students had fathers belonging to the two highest Hisclass groups. Even after excluding vicars, the middle class made up 24 per cent of all theology students. These parents, with a lower income, thus send relatively more sons to university than the elite. Moreover, because the occupational status of Utrecht fathers was not listed on birth and marriage certificates the share of the middle and lower class was probably even higher, as they could keep their sons at home while studying instead of having to rent a room. Furthermore, parents living of off capital were explicitly listed, so the 21 fathers (six per cent) stated to be without a profession were perhaps even presently unemployed. On top of that, 44 widows could afford a university education (thirteen per cent). The evidence thus seems to confirm that low study costs and financial support, which was only available to theology students, allowed middle classes to attend university, which is also found for German theology students in this period.[64]

Easy access to financial support not only broadened university access but also boosted enrolment levels.[65] The academy money probably had a stimulating effect on the number of vicars' sons at theology faculties, thereby promoting intergenerational status transfer.[66] During the seventeenth and eighteenth century, when only some provinces granted academy money, around one-third of vicars had followed into their fathers' footsteps.[67] But as can be seen in Table 1 the share of theology students

[63] Bos, *In dienst van het koninkrijk*.
[64] Ringer, 'Admission', 250.
[65] Edirisooriya, 'A market analysis', 123-5.
[66] Cf. R.L. Zijdeman, 'Like my father before me: intergenerational occupational status transfer during industrialization (Zeeland, 1811–1915)', *Continuity and Change*, Vol. 24 (2009), 455-86.
[67] F.A. van Lieburg, *Profeten en hun vaderland : de geografische herkomst van de gereformeerde predikanten in Nederland van 1572 tot 1816* (Zoetermeer 1996), 102.

receiving academy money was continuously higher than one-third during the nineteenth century, and at some points as high as fifty per cent (1820 and 1840). Also the Dutch government realized around 1850 that this large share of vicars' sons was a direct effect of extending the academy money in 1820.[68]

Moreover, vicars' sons could also receive a special grant when studying something else, but that amounted to no more than 50 guilders a year. If job perspectives were more important than financial assistance in determining study choice, we would expect more vicars' sons to have applied for this particular grant when demand for vicars was low, as was the case for instance around 1842. But even then only about 30 vicars' sons applied for the 50 guilder grant whereas more than 120 still opted to study theology.[69] We may thus conclude that the 200 guilders special grant boosted the number of Protestant theology students. This is all the more surprising since Vree has demonstrated that sons of vicars did not find a church position quicker than other theology students.[70] Studying cheap was then more important than being able to find a job immediately after graduation.

Grant distribution policy of private foundations contributed to boosting enrolment as well. Several grant foundations preferred maximizing the number of grants. Instead of awarding large amounts to the few, they gave small amounts to the many. Since the average grant was 182 guilders, the indigent student had to collect a number of such grants to cover his study costs, forcing him into a juggling act if they needed to finance a theology study entirely with grants. Middle groups, on the other hand, may have benefitted from this grant distribution policy since the average grant provided just that extra bit needed to pay for a theology education. This seems to be confirmed by Table 2, where low social classes (for instance farmers and lower skilled workers) are underrepresented, while middle groups and vicars, those most likely to benefit from financial support, dominated the faculty of theology.

This distribution policy originated in foundations lowering grant amounts when demand for grants rose so as to let more students benefit. Nearly all the examined foundations lowered grants when demand for grants increased, thereby giving more students a grant. For instance, the grant foundation Mijsberg distributed grants evenly among applicants, and disbursed median grants of fl. 100. When a renewed demand for vicars pushed up the number of theology students in 1857 and 1866, the foundation lowered most grants to around 100 guilders. As a result, one in every three Protestant theology students at the Leiden university received a grant from this foundation during the academic year 1865-66. Conversely, when few students applied in 1847, the median grant was set at 200 guilders. Several other foundations also tied amounts granted to the number of applications. Between 1846 and 1866 the estimated amount of financial assistance available to theology students in the province of Zuid-Holland increased from

[68] NA, Hervormde Erediensten, 1815-1870, inv. 1990.
[69] *Kamerstuk Tweede Kamer 1850-1851 kamerstuknummer XCVIII ondernummer 5: Wijziging van hoofdstuk VI der Staatsbegrooting van 1850.*
[70] J. Vree, 'Overschot op de Nederlandse kandidatenmarkt: een bron van overzeese predikanten, hulppredikers, enz. (1829-1872)', *Documentatieblad voor de Nederlandse kerkgeschiedenis na 1800*, Vol. 30, No. 66 (2007), 46.

4,400 to 7,480 guilders. The number of grants increased from 20 to 44, whereas the average amount dropped from 220 to 170 guilders. Now more than twice as many students received a grant. The Utrecht theology professors, who managed several private foundations, also split several large grants into grants of 100 guilders when applications increased during 1850. When again applications rose in 1870, the curators further reduced the average amount to raise the number of students receiving financial assistance from 30 now 50, one for every seventeen theology students at the university of Utrecht.[71]

Easy access to finance and grant distribution policy boosted the number of students in theology. As will be demonstrated, this resulted in a structural oversupply of theology graduates from 1830, when the cohorts benefitting from the 1820 policy changes by and large had graduated. Also Catholic students received financial support, but this was organised along different lines. It is to their student financing that we turn first.

III. Financing Catholic theology students

The combination of close ties with their local church district and a relative financial independence gave the minor and major training colleges more control over student selection and financing, as a result of which the colleges could combine low tuition fees with graduation numbers closely balanced to job market needs. To compare the financing of seminary students with Protestant theology students, data have been collected for the major colleges of Haarlem, Utrecht and Den Bosch. These colleges provide a fairly representative overview for the training of the Catholic Dutch clergy, as the respective dioceses for which they trained accounted for at least 70 per cent of all Dutch secular clergy between 1838 and 1890.[72]

Study costs at the three colleges were well below those paid by Protestant theology students. The major college of Haarlem charged 324 guilders a year from 1819, and only 315 guilders a year as late as 1900. Utrecht tuition was 250 guilders throughout the century. The major college of Den Bosch charged 180 guilders per year until 1873 and increased this to only 200 guilders during the last quarter of the century. These amounts included board and lodging, because all were boarding colleges. Students only had to pay for their clothes and their books. Assuming books and clothes represented a quarter of expenditure, Catholic college students paid around fl. 400 at most annually, about half of the costs of Protestant students.

Like the Protestant students, attending a Catholic college was not only a spiritual but also a financial matter, with low tuition fees widening access for candidates from

[71] HUA, Universiteit Utrecht: faculteit Godgeleerdheid, inv. 3, inv. 707, inv. 714, inv. 715, inv. 758, inv. 767-779.

[72] In 1838 the dioceses of Den Bosch, Haarlem and Utrecht represented 80 per cent of all Dutch secular clergy. This share dropped to 71 per cent in 1869 due to the reorganization of the diocese of Roermond. For earlier years an overview is not available. *Handboekje voor de zaken der roomsch katholijke eeredienst* (1869), 59, 85, 115, 131, 156; *Roomsch-katholijk Jaarboek* (1838), 15-82.

lower social groups.[73] Data on the origin of Catholic college students for this period is scarce, but more than half of all students enrolled at the Utrecht major college between 1857 and 1863 originated middle to lower class families. Even eight per cent of lower class fathers were day-workers or unskilled labourers, while another large share were farmers. Only thirteen per cent of students' fathers were either higher managers or professionals. Table 3 demonstrates the Utrecht college students were of considerably lower-class origins than even the Utrecht theology students. This relatively low origin of college students also seems to apply to minor college students in Brabant during the 1880s.[74]

Table 3. Occupational status of fathers of Utrecht major college students, 1857-63.

Class	Description	N	%	Theology students university of Utrecht (%)
High	Hisclass 1 to 3	16	13	19
Middle	Hisclass 4 to 7	46	37	24
Low	Hisclass 8 to 12	36	29	2
Vicars	Vicars of the Dutch Reformed Church	n/a	0	28
Other	Unknown, widows, without employment, deceased	28	22	26
Total		126	100	100

Notes: The profession of the student's father is obtained by linking the full name of the student, his place of birth and the full names of both parents to digitized birth or marriage certificate.

Source: HUA, Aartsbisdom Utrecht: instituten voor de priesteropleiding , inv. 810. University students from Table 2. Birth and marriage certificates from www.wiewaswie.nl.

There was no significant difference between the socio-economic origin of grant students compared to non-grant students at Utrecht major college between 1857-63.[75] Low tuition fees combined with the colleges' function as a route for upwards social mobility probably removed the necessity to use grants for attracting students.[76] Instead, the colleges of Utrecht, Den Bosch, and Haarlem could afford to operate a strict selection procedure tied to financial incentives. College boards only admitted students likely to finish a theology education with success, used grants and subsidies to ensure that a sufficient number of students enrolled and graduated to fill the vacancies in their church district, and carefully monitored the performance of students with grants to ensure that

[73] The colleges continued to attract relatively many students from lower social groups during the first half of the twentieth century; J.J. Dellepoort, *De priesterroepingen in Nederland: proeve van een statistisch-sociografische analyse* (Den Haag 1955), 208-11; K. Mandemakers, *HBS en gymnasium: ontwikkeling, structuur, sociale achtergrond en schoolprestaties, Nederland ca. 1800-1968* (Amsterdam 1996), 256.
[74] Mandemakers, *HBS en gymnasium*, 294.
[75] Chi-Square sig. = 0.91
[76] Ringer, *Education and society*, 159; P. Nissen, 'Het onbedoelde rendement van de kleinseminaries in het katholieke zuiden van Nederland', *Tijdschrift voor Nederlandse Kerkgeschiedenis*, Vol. 3 (2000), ***

they would fulfil their promise.[77] For instance, Joseph Olivier Josset received a grant from the Haarlem directors in 1811 because he was both 'talented and pious'.[78] The boards could select on the basis of talent and determination because, unlike the Protestant grant foundations, they managed nearly all grant foundations themselves.[79] Consequently, instead of financial assistance boosting student enrolment, as was the case for Protestant theology students, the college boards could balance supply and demand.

In Utrecht we can observe this policy at the Culemborg minor college, from which students graduated to attend the major college for another four years. No student was eligible for a grant during his first year at Culemborg, so the board could observe the newly arrived and select the ones deserving a grant.[80] Any application required a reference of the local parish priest so that the board could assess a student's potential better. Receiving a grant at the small seminary may have served as a basis for a further grant at the major college, because at least 41 cohort students that did not receive a grant at Culemborg did not receive one either at the major college, whereas the subsidies of at least seven known minor college students were continued at the major college.[81] At the Haarlem minor college talent and conduct of students was monitored in conduct books to ensure that subsidies were awarded to the right students.[82]

A similar grant policy operated at the Den Bosch major college, whose curriculum took six years rather than four because it included two extra years of philosophy classes. The board predominantly awarded assistance to students who had stayed at the seminary for at least one year or more. Annual study financing has been collected for students enrolled at the Den Bosch major college between 1831 and 1891 at five year intervals (263 students). Only 24 out of the total 107 grant students had received a grant during their first year at the grand seminary.[83] All other grant students only received a grant after spending one year or more at the major college. Furthermore, there are signs that some of the first-year grants had already been assigned by the minor college and for that reason were prolonged at the major college, as probably happened in Utrecht as well.[84]

The major colleges monitored student conduct, talent, and performance so they could target grants at the right kind of students. The board of the Utrecht and Den Bosch colleges kept a special conduct book, in Latin, for the purpose. It seems likely that the board did this so as to link grants and tuition paid to individual progress. Also the diocese wanted to make sure that money was well spent. For instance, the Haarlem

[77] Mandemakers also suspects that minor colleges selected on whether a student was capable of achieving the priesthood; Mandemakers, *HBS en gymnasium*, 287.
[78] L.J. Rogier and N. de Rooy, *In vrijheid herboren. Katholiek Nederland 1853-1953* (Den Haag 1953), 190.
[79] Cf. W. Leslie, 'The curious tale of liberal education, professional training and the American college, 1880-1910', *History of Education*, Vol. 40 (2011), 92-3.
[80] HUA, Aartsbisdom Utrecht, inv. 320.
[81] The sources do not allow to trace all students with subsidies, but at least seven of the thirteen grant students who enrolled at the grand seminary between 1860 and 1863 had already received a subsidy at the small seminary; HUA, Aartsbisdom Utrecht, inv. 705.
[82] Noord-Hollands Archief (NHA), Haarlem, Seminarie Hageveld te Heemstede, inv. 626, inv. 627.
[83] DADB, inv. 175, inv. 176, inv. 1058. The cohort of 1851 was missing.
[84] NA, BiZa / Hoger Onderwijs , inv. 863.

archdiocese in 1831 the archpriest of Holland wrote to the seminary that students in the future had to collect their donations personally at his office, allowing the archpriest to better evaluate these students.[85] Just as in the Utrecht and Haarlem minor colleges, major college boards wanted to limit the waste of grants by ensuring that students receiving them were capable and fully motivated to finish their studies. For that reason grants were rarely given upon entry. Moreover, colleges did not hesitate to dismiss underperforming students away. During the 1860s, for instance, the Utrecht board sent a few poor performers to a local Catholic order.[86] Another grant student at the Utrecht minor college was removed in 1888 when his talents proved too small.[87]

A leaflet from 1819 demonstrates that this selection procedure did not fare well with all students. The writer, Adrianus van der Kuyl, had been removed from the Heerenberg major college earlier because of misbehaviour. When he applied at the Utrecht archpriest for a grant to continue his studies elsewhere in the Netherlands he was told that he 'was no great loss to the Church' and as a result further grants from the colleges were denied.[88] In another leaflet Adrianus criticized the grant policy of the colleges because Catholic churchgoers entrusted the colleges with the distribution of their donations instead of supporting students directly, consequently blocking Adrianus' access to financial support altogether.[89]

Notwithstanding Adrianus' complaints this policy of supporting relatively talented students alone fostered a high success rate. Grants awarded to the right students enabled them to follow the entire curriculum from minor through to major college and the priesthood. For some, grants awarded at the minor college smoothed the move to the major college, as the Utrecht data and data from the last four years of Haarlem major college students indicate. Moreover, grant students rarely quit prematurely. A lack of sources prevents us from establishing this further, but data on the financial support awarded by the major colleges does confirm grants significantly reduced the number of students dropping out.

At the Den Bosch seminary receiving a grand smoothed the way from the philosophy to the theology department (the last four years). By continuing a grant from year two to year three boosted the chances of a student staying at the college. Only four out of 105 students receiving a grant in their second year at the grand seminary did not continue their studies at the major college. By comparison, of the 156 cohort students without a grant, as many as 47 did not make it to the grand seminary, i.e. they failed to stay at the seminary for more than two years. At Haarlem major college during the years 1867-76, 37 out of 46 cohort students with financial support had at least received their

[85] NHA, Seminarie Warmond, inv. 93, letter of the director of Haarlem major college, March 1st, 1831.
[86] HUA, Aartsbisdom Utrecht, inv. 705
[87] HUA, Aartsbisdom Utrecht, inv. 697.
[88] A. van der Kuyl, *Geschiedekundige verdediging, of Letterlijk verslag van A. van der Kuyl, weleer student in het seminarium te 's Heerenberg, omtrent wat hem is wedervaren van een r.k. priester, al de vervolgingen, die hij heeft ondergaan, zijne lotgevallen als soldaat, enz., de brieven, door hem aan den aartspriester gezonden, en deszelfs gewelddadige overlevering in handen van een' dienaar der politie* (1819).
[89] A. van der Kuyl, *Een woordje aan alle gelovige roomsch katholijken, betrekkelijk de inzameling van liefdegiften voor de seminaria, zijnde Warmond en 's Heerenberg, en de kleine seminaria Velsen en Kuilenburg : het onnuttige, onbelangrijke en de nadeelige gevolgen daaruit bewezen en wederlegd* (1820).

grant on starting their theology courses. As indicated, notes suggest that, as in Den Bosch, some of them had been given a grant during the previous year as well.[90]

Grants seem to have reduced dropping-out not only because they were predominantly awarded to students capable of finishing their first two years, but also because once given the college boards rarely discontinued them. All grant students in Utrecht received the money, usually 100 guilders, for their entire course of study. At Haarlem major college, 44 out of the 46 grant students continued to receive a grant until they graduated or left the seminary. Even Wilhelmus Kortekaas' grant was continued when he returned to the seminary after being absent for more than a year, possibly due to illness.[91] Clearly grants helped students to continue studying.

The Den Bosch board reduced the chances of dropping-out even further by progressively increasing grants. Table 4 gives the average grant amounts paid to students during their stay at the college. The longer they stayed, the more financial assistance they received per year. During his sixth year, the average grant student received more than twice the amount of his first year. Since grant students generally stayed for no more than about six months during their seventh year, grants even financed almost all tuition fees for grant students during their seventh year, greatly helping them to graduate. Consequently, by gradually extending the number and amount of grants, colleges motivated students to stay and finish their studies. Overall, almost four out of ten cohort students received financial assistance at some point.

Table 4. Tuition financing for cohort students at Den Bosch major college, 1838-91.

Study year	Total Students	Grant students	%	Average grant (fl.)	SD
1	263	24	9	71	36.75
2	240	58	24	92	55.75
3	213	74	35	110	54.29
4	201	81	40	108	52.70
5	172	76	44	122	61.13
6	155	76	49	157	70.89
7	86	44	51	131	76.75

Source: DADB, inv. 175, inv. 176, inv. 1058.

Also at the grand seminary of Haarlem many students benefitted from financial support. Data on tuition between 1819 and 1834 shows that financial assistance lowered study for all Haarlem students by almost 30 per cent. Because of grants and subsidies, students only had to pay fl. 230 annually out of their own pockets. During the years 1867-76 even more than 60 per cent of the sample students financed more than half of tuition with financial assistance. Grants not fully employed by some students because of graduation were even transferred to make sure other students could also

[90] DADB, inv. 812, inv. 1058.
[91] NHA, Seminarie Warmond, inv. 168, fol. 156.

finance their studies up to the point of graduation.[92] This increased level of funding was no coincidence. As will be shown below, the number of church positions increased in this period, raising demand for Haarlem graduates. By extending more funds, and also by making rich students assist poorer students, the Haarlem seminary was able to match this increased demand for graduates.

Data on study duration and the number of priest ordinations demonstrate that the selective grant policy of the colleges was successful in encouraging persistence and graduation. At the Den Bosch college, for which we have the largest sample, grant students dropped-out far less frequently than other students, and they also completed their studies more often. While around thirty per cent of non-grant students did not stay for over two years at the seminary, only one of the 58 grant students present in year two did not stay for a third year. [93] Of the remaining 57 grant students, 50 almost certainly finished their studies.[94] Three quarters of all grant students even stayed at the college for six years or longer, strongly suggesting that these all finished their education. Non-grant students only stayed for an average of 4,5 years and many of them did not make it into their third year. In all, 96 per cent of students at some point receiving a grant completed their studies compared to only 67 per cent of students without financial support. The Den Bosch seminary thus effectively curtailed dropping out by giving progressively increasing grants to second-year students that had proven their capability. At Haarlem only three grant students did not complete their education, although non-grant students of the sample finished their studies to the same degree.

The emphasis of the Catholic seminaries on persistence and graduation proved favorable for the job market for chaplains and priests. Of the 88 Utrecht students without a grant, eight did not receive their ordination, whereas only two of the 38 grant students were eventually on completing the major college curriculum. Nearly all of these grant students entered the Church following their ordination. Only four of the 38 grant students did not make it to chaplain because of different reasons. One left after two years for Brussels and studies there at the American college to become missionary in the United States. Another left after a year to become missionary in Curacao. The third student died one year after enrolment. Only one student decided the priesthood was not for him and married five years after his ordination.

It is possible that such a large share of grant students became priests because they had to repay their grants if they did not join the local clergy. Although little correspondence has survived, the father of Johannes van Aarnhem, a tailor in Jutphaas near Utrecht, declared in 1919 that he would repay all his son's grants during his stay at the minor and major colleges, should his son become missionary instead of serving the diocese of Utrecht. Moreover, colleges board and dioceses at times interacted to make sure sufficient students were educated. For instance, between 1841 and 1856 the Utrecht church district subsidized the tuition of their students attending the Haarlem

[92] NHA, Seminarie Warmond, inv. 168 (no page numbering). See the notes at student Bensdorp, Ten Brink, Haastrecht, Galen, and Borsboom.
[93] 45 out of 157 students who never received a grant did not continue to the third study year.
[94] Meaning that they stayed four years or longer.

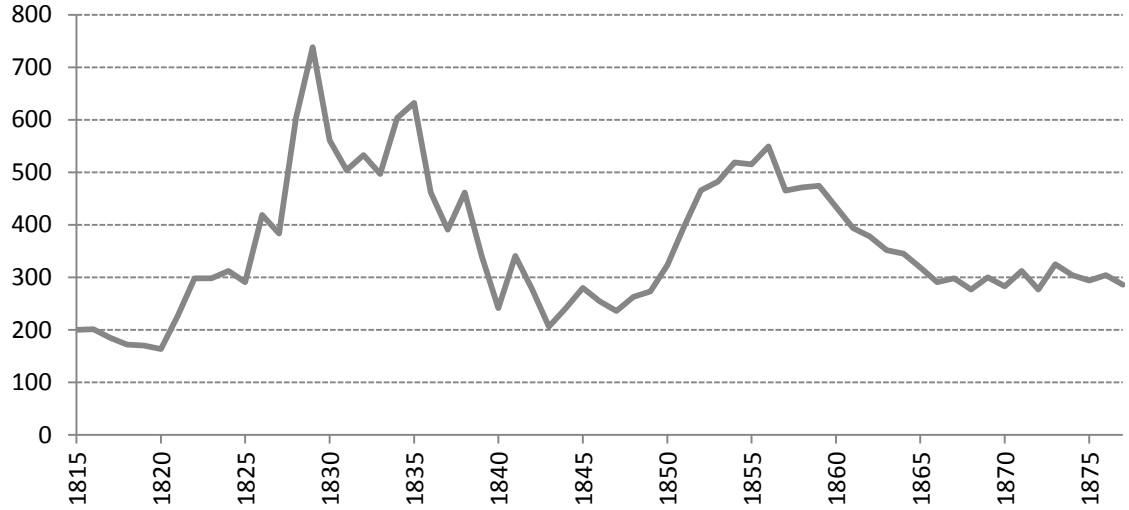
major college, so they paid only paid 200 guilders instead of 324, thus ensuring that the distance between the two cities would not deter students from enrolling in major college training.[95] As demonstrated above, the Haarlem archpriest also kept a close watch on the allocation of grants awarded by the diocese. The diocese of Utrecht regularly informed the board of Utrecht major college on their demand for chaplains, and advised the board on how many students to enrol.[96] How successful was this concerted effort?

IV. Student financing and the labour market

The result of careful selection combined with financial assistance targeted to encourage persistence and graduation was a stable labour market for Catholic clergy. By contrast, the lack of any selection tied to easily accessible financial assistance for Protestant students, which primarily aimed at encouraging enrolment created a surplus of graduates. As introduced by Titze, nineteenth-century labour markets for graduates were often characterized by a 'pork' or academic cycle, meaning that they showed cyclical fluctuations in the supply and demand for students.[97] If the labour market outlook was good and more graduates were needed, enrollment would increase. Because studying takes time demand seemed to persist even after the initial increase in enrollment, causing more students to enroll than needed.[98] This resulted in an oversupply of candidates, deterring aspiring students from studying. Consequently, demand would again rapidly increase when the previous generation retired, and the cycle would repeat itself.[99] Such cycles are usually found when 'a given course of study invariably prepares for a specific profession, or a narrow cluster of professions', like studying theology.[100] As demonstrated by Rooden and Graph 2 below, this cycle unmistakably characterized enrollment of Protestant theology students during the nineteenth century, with enrolments peaking during 1820-30 and 1850-60, and dropping before and after every peak.[101]

[95] NHA, Seminarie Warmond, inv. 166.
[96] HUA, Aartsbisdom Utrecht, inv. 705.
[97] Titze, 'Die zyklische Überproduktion'; Ibid., *Der Akademikerzyklus*; Rooden, *Religieuze regimes.*
[98] Rooden, 'Van geestelijke stand naar beroepsgroep', 367-8.
[99] Jensma and de Vries, *Veranderingen in het hoger onderwijs*, 167.
[100] Ringer, 'Admission', 236.
[101] Rooden, *Religieuze regimes*.

Graph 2. Enrolled Protestant theology students, 1815-77.



Notes and source: see Table 1.

However, the data presented above makes a strong case for arguing that not only labour market demand but also the distribution and level of financial support affected these student cycles significantly. As noted above, the enrolment of Protestant theology students was boosted by three factors: tuition fees, the special grant for vicars' sons, and the policy of maximizing study grants. As for the first factor, it is no surprise that student numbers soared from 1820-1836 after the abolition of tuition fees. The second factor, granting 200 guilders to all sons of vicars studying theology, caused a very large share of them to do so, even when demand for vicars was low. Table 5 gives the average estimated number of vicar's sons studying theology. The table demonstrates that around forty per cent of all Protestant theology students were sons of vicars. Even though the Protestant Church around 1830 thanked the government for increasing access to the Theology faculties, they also conceded that academy money together with free tuition had led to an oversupply of graduates.[102]

[102] *Handelingen* (1830), 9.

Table 5. Estimate of vicars' sons studying Theology annually.

Period	Theology students (mean)	Vicars' sons studying Theology (mean)	Per cent
1815-1820	182	72	39 %
1821-1830	389	180	47 %
1831-1840	440	184	42 %
1841-1850	246	112	46 %
1851-1860	477	177	37 %
1861-1870	324	140	43 %
1871-1877	300	98	33 %
1815-1877	343	140	41 %

Notes and source: see Table 1.

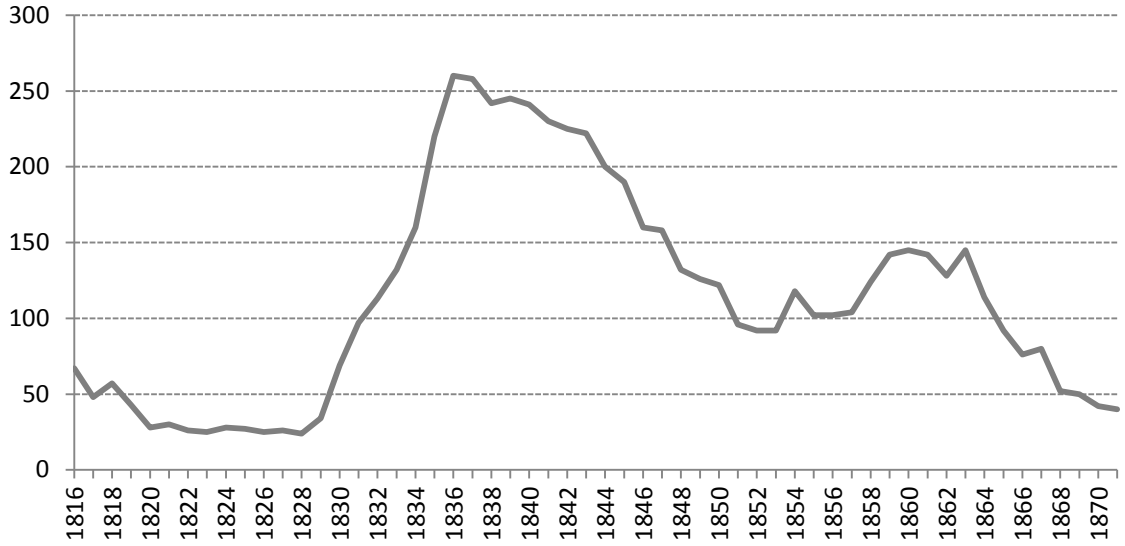
Turning to the third factor, whereas academy money structurally increased attendance, the distribution of the grant foundations increased attendance at the very moment when demand for vicars peaked. By spreading grants wide this policy worked procyclical, enabling more middle class students to finance their studies, thus raising enrolment further. As a result the oversupply of students was reinforced. That is why in 1835 politician William Schimmelpenninck van der Oije argued that the generous levels of financial support had to be reduced, because they had raised enrolment to undesired levels.[103] During the same year also the Reformed Church had identified that too many students now frequented the faculties of Theology.[104] Thus, while the special grant ensured that even in periods of low demand many sons of vicars still attended university, private grants boosted student numbers when demand was high, even though that demand itself already attracted a sufficient number of students. Nor did it help that everyone with the right qualifications had access to a faculty of theology, so, unlike the seminaries, enrolment could not be controlled.

As a result from 1830 onwards Dutch universities continuously trained more theology students than the Dutch Protestant Church needed or had bargained for. In 1819 the Protestant Synod had calculated that 40 graduates a year would suffice in order to have sufficient vicars, which required a number of 259 theology students.[105] However, from 1820 to 1836 the average number of theology students was 440 per year, way more than the Church needed to fill vacancies. Already in 1822 the number of students - approximately 300 - was sufficient to staff the Church, yet enrolment continued to increase to a staggering 700 in 1829. Student numbers only really began to decline after 1836, not surprisingly the year in which tuition fees were reinstated. But even during this trough in the cycle of theology students, which lasted until 1850, still

[103] *Handelingen der Staten Generaal*, December 11 (1835), 86.
[104] *Handelingen* (1830), 9
[105] *Handelingen* (1819), 22-23.

too many students were educated in theology. Even at the bottom of the cycle still more than 200 theology students attended the universities.

Graph 3. Available candidates for the Protestant Church.



Source: Vree, 'Overschot', 20-21.

Moreover, the pool of graduates waiting for a position reduced the need for new theology students further and further. This can be seen in Graph 3, which gives the annual number of available theology graduates. Even during periods of low demand in the 1850s still around 100 candidates were waiting for a position as vicar, demonstrating that the surplus of theology students was not only a problem of the 1830s and 1840s.[106] Only from the 1860s did the labour market begin to offer an outlet for these graduates because an increasing number of theology graduates found employment at the new Dutch secondary schools (HBS).[107] Before that many of them ended up in sectors not requiring a theology degree, or had to resort to a vicar position in the Dutch colonies. The oversupply seems to have decreased seriously when the schism in the Dutch Protestant Church around 1880 put off many potential students.[108]

By consulting the Protestant magazines like *De Boekzaal* or another popular one *De Gids*, students could relatively easily have noticed that there were too many theology graduates. These magazines not only published the number of available candidates, but also advertisements of jobless graduates offering their services as assistant-vicars. For instance, *De Boekzaal der Geleerde Wereld*, recorded an average of 181 available candidates during the 1840s.[109] The fact that neither these numbers nor the

[106] Contrary to Bos, Vree agrees that the oversupply at least lasted throughout the years 1829-1871; Vree, 'Overschot', 23.
[107] Bos, *In dienst van het Koninkrijk*, 277.
[108] W. Bakker et al. (eds.), *De Doleantie van 1886 en haar geschiedenis* (Kampen 1986); A.J. Rasker, *De Nederlandse Hervormde Kerk vanaf 1795: geschiedenis, theologische ontwikkelingen en de verhouding tot haar zusterkerken in de negentiende en twintigste eeuw* (Kampen 1986).
[109] J. Vree, 'Overschot', 20-21. This oversupply shows a remarkable similarity with the difference between the estimated average number of students between 1820-36 (440), minus the calculated number of required candidates by the Dutch Protestant Church (259).

advertisements put off potential theology students underlines the importance of the wide availability of grants in maintaining a surplus of theology students even in periods of low demand.

While we can only guess why financial incentives were not further reduced from 1836 to balance supply and demand, some contemporaries did notice the link between financial support and the oversupply of theology graduates. Because sufficient theology students would also have been attracted without 'enticements' such as grants, an anonymous leaflet of 1834 called to abolish study grants.[110] He also called for a tax on theology students to support unemployed graduates. Some Protestant Church districts seem to have realized the problems of grants as well, when in 1868 they discarded a clause to increase study grants for sons of vicars, arguing that the number of grants for theology students was already more than sufficient to meet demand.[111] Abolishing grants would, according to the writer, also have the 'beneficial' effect of deterring many lower class students that now studied theology. That relatively low study costs attracted a relatively large share of middling students was confirmed by a commenter in the *Algemeen Handelsblad* of November 20, 1838, stating that 'it used to be old wine that shines, now it is only foamy barley beer: because as soon as they have sufficient money scraped together by painting, chopping or carpentering, the son has to go to university, capable or not, it does not matter'.[112]

The oversupply emanating from the Protestant theology faculties contrasts sharply with the situation at the Catholic colleges. Both institutions trained for a single profession offering opportunities for social advancement. At the universities, uncontrolled enrolment combined with easy access to funding and ill-judged tuition policy produced a structural oversupply of graduates. The colleges, however, succeeded in tailoring the number of graduates closely to demand by a policy of selection and monitoring backed up by judicious grant awards.[113] As Graph 4 shows, the attendance levels of Catholic college students shows no cycles comparable to those for Protestant theology students. Student numbers for both Catholic districts remained more or less constant throughout the nineteenth century, the only disruption around 1825 being a temporary one following an interruption in the flow of students from minor to major colleges, as explained above.[114] The gradual increase in student numbers reflected a rising number of chaplains and to a lesser extent priest positions. Student numbers in Den Bosch increased until about 1848, in line with the number of chaplain positions. At the colleges of Haarlem and Utrecht the growth in students from 1857 coincided with an increase in the number of chaplains. As explained, the Haarlem college matched this rise by extending more grants and subsidies and allowing more leeway in tuition payments.

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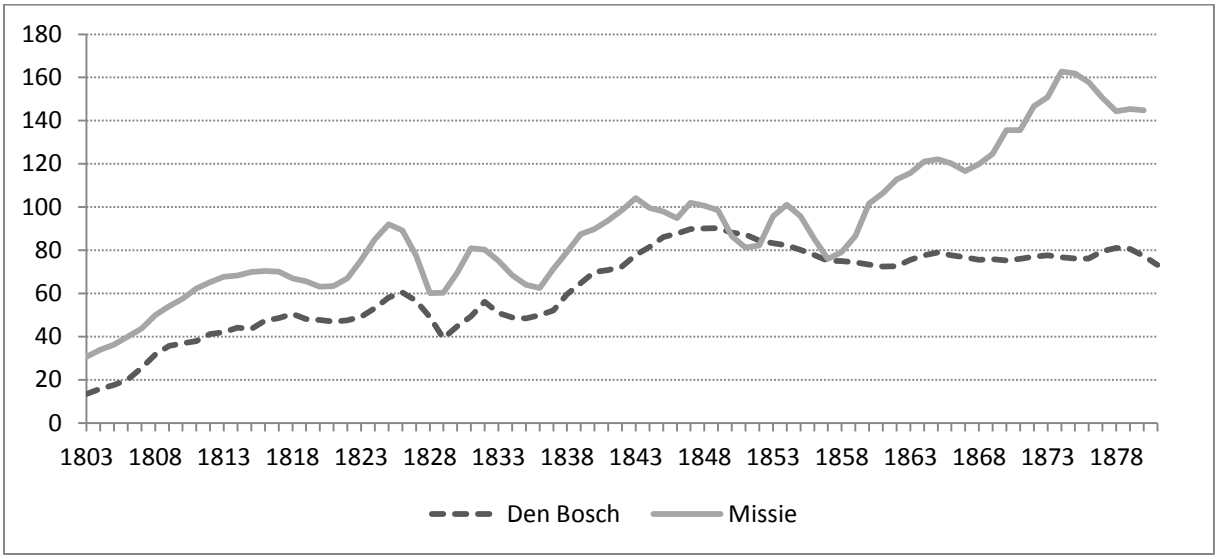
[110] Philocandidatus, *Middelen ter plaatsing van een aanzienlijk getal proponenten* (1834).
[111] *Handelingen* (1868), 36.
[112] Otterspeer, *De wiekslag van hun geest*, 432 (my translation).
[113] That colleges selected students is not only inferred by their grant policy but also suggested by correspondence found in HUA, Aartspriesters Hollandse Zending, inv. 1096.
[114] Rogier and de Rooy, *In vrijheid herboren*, 35-6.

Graph 4. Estimate of students at the Den Bosch and Missie major colleges (3-year moving average).



Notes: The relation between Heerenberg (part of the Missie) and Den Bosch students between 1837-42 is used to estimate the number of students at Heerenberg between 1800-37. Estimates are based on annual enrolments combined with average graduation rates and study length.

Source: DADB, inv. 175, inv. 176, inv. 1058; HUA, Aartspriesters Hollandse Zending, inv. 1981; HUA, Aartsbisdom Utrecht: instituten voor de priesteropleiding, inv. 810; NHA, Seminarie Warmond, inv. 85, 92, 93, 121, 166, 167.

Unlike the well-documented oversupply of Protestant graduates, the job market for Catholic clergy has not been documented. Job market cycles can nevertheless be discerned by looking at the average terms of clergy office. When the number of vacant positions for chaplains and priests was low, we should expect that the average length of office too have increased, since chaplains or priests would be less able or willing to switch parishes.[115] Similarly, an undersupply of chaplains or priests should have translated into declining average terms of both offices, since parishes would compete for priests from other parishes. Conversely, a shortage of chaplains would have slowed the flow from chaplain to priest, increasing the latter's average term of office.

Table 6 lists the average office terms for priests and chaplains for the two church districts, calculated from data in Catholic almanacs. Neither office showed any remarkable changes between 1838 and 1888. Throughout the period, the average chaplain served a parish for 5.7 years and priests served for 12.6 years. Furthermore, this constancy suggests that the move from chaplain to priest was steady throughout the period. Only the Den Bosch chaplains around 1873 were in office for longer than usual, probably because the number of chaplains positions increased faster than the number of priests. By 1888 this must have been resolved since office terms of Den Bosch priests dropped again, as chaplains that had had to stay in office longer in 1873 had moved to a (newly installed) priest position in 1888 – explaining the decreased average term of

[115] Rooden demonstrated that the average length of office for vicars represented fluctuations in demand and supply during the nineteenth century; Rooden, *Religieuze regimes*, 51-55.

office of the latter in 1888. Otherwise the job markets for priests and chaplains showed a remarkable stability, judging from the average terms of office. The two Catholic areas were thus able to match the influx of college students with the number of clergy needed in their district.[116]

Table 6. Average number of years in current office for chaplains and priest.

Year	Chaplains (n=3,160)		Priests (n=4,454)	
	Den Bosch	*Missie*	*Den Bosch*	*Missie*
1838	5.5	6.4	13,8	11.7
1843	6.0	5.8	14,3	10.9
1847	5.4	6.8	13,8	10.5
1853	5.7	5.8	14,5	10.5
1863	5.7	4.3	14,6	11.6
1873	6.9	4.7	15,0	11.7
1888	6.1	5.0	11,6	11.8

Notes: Length of office has been recorded for all chaplains and priests in both districts. 1857 had to be omitted because the source did not allow to reconstruct terms of office.

Source: *Roomsch-katholijk Jaarboek* (1838, 1843); *Handboekje voor de zaken der roomsch katholijke eeredienst* (1847, 1853, 1863, 1873); *Pius Almanak* (1888).

But did this close matching of students with demand for clergy relate to an actual increasing demand for clergy from Catholic communities? After all, an oversupply of students could have been masked by merely installing more priest and chaplain offices when there was no need for, consequently preventing graduate unemployment. The number of Catholic inhabitants in both districts, obtained from censuses, can be used as a crude proxy for the demand for clergy.[117] Relating the number of clergy to the number of Catholic inhabitants demonstrates that in both districts the number of clergy strongly and significantly correlated to the number of Catholic inhabitants throughout the nineteenth century.[118] Both the Missie and the Den Bosch district thus matched a growing demand for clergy by educating more chaplains and priests, without this resulting in cyclical student cycles as was the case with the Protestant students. As a result, in both districts the number of clergy per 1.000 Catholics was continuously stable at around one. This strongly suggests that both districts during the nineteenth century judiciously balanced student numbers with the need for clergy in their parishes.

[116] There is a strong and significant correlation between total student numbers (1800-1880) and total chaplain positions (1838-1880, interpolated); n = 42, r = 0.72, sig. = < .01.
[117] Catholic inhabitants from the censuses of 1830, 1840, 1859, 1869, 1879, 1889 available at www.volkstellingen.nl (last retrieved 21-10-2013). Catholic clergy from *Roomsch-katholijk Jaarboek* (1838, 1843); *Handboekje voor de zaken der roomsch katholijke eeredienst* (1859, 1869, 1879). Clergy for the year 1889 is extrapolated.
[118] For both districts r = > .9 and sig.= < .01.

Conclusion

Both Protestant universities and Catholic colleges offered financial support to ease access to higher education for individual students. Both thereby attracted a relatively large number of students from low social groups, the limited data available suggesting that in this respect the Protestant theology departments differed remarkably from other faculties. The easy access to financial support offered to these students in particular provides a strong argument that low costs historically promoted access to higher education. Low tuition fees plus similar amounts of financial support for Catholic college students also resulted in attracting a high number of students from lower social classes.

However the way in which assistance was provided mattered a great deal for enrolment, graduation, and job opportunities. At the colleges, concentrating the provision of higher education and financial support in the same hands allowed for a close match between supply of graduates and job market demand. Each college had close connections with its diocese, so the boards could tailor enrolment and graduation to vicar vacancies in their region. The colleges could do this because they were free to select at the gate and because they controlled grant funds themselves. Grants were not only awarded to ease enrolment and broaden access, but also to encourage students to persist and graduate. [119] By contrast, the universities could neither select nor monitor theology students and they had no power over grants or tuition fees either. Moreover, a total absence of coordination between the universities, the Church and the grant foundations prevented the formulation of a coherent grant policy tuned to job opportunities. This Dutch example suggests that the graduate oversupply cycles, which can be observed throughout eighteenth and nineteenth-century Europe, rooted in the distance between financiers and institutions of higher education.

Like today, the success of both types of student funding ultimately depends on the parties considered. In contrast to elementary education, the oversupply of Protestant graduates was not really beneficial to society, since employment opportunities for these graduates were limited until the end of the nineteenth century. Meanwhile, government costs rose following the abolition of tuition fees. The Protestant Church did benefit because now they could select the most talented candidates. Some church boards have indeed been known to select candidates on the basis of wearing glasses or not, just because so many applicant were available. The efficient use of study grants reduced training costs for the colleges. However, their emphasis on balancing enrolment with vacancies did imply that a large share of admitted students needed to graduate, even if they eventually did prove less talented. Some correspondence does suggests that the college boards sent these students deliberately to small parishes with little churchgoers, where they could do little damage.

It is perhaps no surprise that local funding of students and the decentralized organization of the Dutch Catholic colleges allowed for a closer match between supply

[119] It would be interesting to see if the replacement of need-based grants by competitive grants in nineteenth-century Germany resulted the same effects; P. Lundgreen, 'Educational expansion and economic growth in nineteenth-century Germany: a quantitative study', in: L. Stone (ed.), *Schooling in society* (Baltimore 1976), ***

and demand. A large strand of literature has demonstrated that local organization of education allowed for a better translation of local demand for education in actual provision and funding of elementary and secondary schools during the nineteenth century in Western Europe and the United States.[120] Moreover, the success of higher education in the United States is also ascribed to decentralized funding and local control, while also here low costs broadened university access.[121] The similarity between these cases demonstrates that European university historians should consider the level and distribution of student funding more closely if they want to understand the historical links between university access, enrolment patterns and labour markets outcomes.[122] These findings may provide insights for present-day higher education as well, as increased access to education and rising enrolment is not always to the same degree matched by demand for graduates.[123]

[120] Lindert, *Growing public*, chapter 5; Goldin and Katz, *The race between education and technology*; C. Goldin 'Why the United States Led in Education: Lessons from Secondary School Expansion, 1910 to 1940', in: Eltis *et al*., *Human Capital and Institutions*, 143-78; Ibid, 'The Human-Capital Century and American Leadership'; N. Beadie, 'Tuition Funding for Common Schools: Education Markets and Market Regulation in Rural New York, 1815–1850', *Social Science History*, Vol. 32 (2008), 107-33; Westberg, 'Stimulus or impediment?'; T. Nipperdey, 'Mass Education and Modernization - The Case of Germany 1780–1850: The Prothero Lecture', *Transactions of the Royal Historical Society (Fifth Series)*, Vol. 27 (1977), 155-72; P.T.F.M. Boekholt, *Het ongeregelde verleden: over eenheid en verscheidenheid van het Nederlandse onderwijs* (Assen 1998).
[121] Goldin and Katz, *The race between education and technology*, 260; Edirisooriya, 'A market analysis', 121.
[122] Cf. M.C. Pfaffen and K. Jost (eds.), *Finanzierung von Universität und Wissenschaft in Vergangenheit und Gegenwart* (Basel 2005).
[123] S. McGuinness, 'Overeducation in the Labour Market', *Journal of Economic Surveys* , Vol. 20 (2006), 387–418; J. Allen and R. van der Velden, 'Educational mismatches versus skill mismatches: effects on wages, job satisfaction, and on-the-job search', *Oxford Economic Papers* , Vol. 3 (2001), 434–52; J. Pitcher and K. Purcell, 'Diverse Expectations and Access to Opportunities: is there a Graduate Labour Market?', *Higher Education Quarterly* , Vol. 52 (1998), 200.