Public funding of higher education

A comparative study of funding mechanisms in ten countries

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0 Samenvatting en vergelijking

0.1 Inleiding

0.1.1 De beleidscontext

Publieke uitgaven voor hoger onderwijs vormen een significant deel van de totale overheidsuitgaven. Dit wordt gerechtvaardigd door de cruciale rol die hoger onderwijs speelt in de ontwikkeling van nationale economieën en samenlevingen naar kenniseconomieën en –samenlevingen. Moderne samenlevingen moeten blijven investeren in hoger onderwijs en onderzoek om bij te blijven in de groeiende concurrentie in de zich snel ontwikkelende *global economy*. In deze context neemt de publieke bekostiging een belangrijke plaats in.
In de jaren tachtig werd de discussie over publieke bekostiging gevoerd in een context van bezuinigingen en was daarom vooral gericht op de verhoging van de efficiëntie. In de jaren negentig, waarin het neoliberalisme en het neo-socialisme opgang deed in een aantal West-Europese landen, was de aandacht meer gericht op het inspelen op (kennis)vragen uit de markt. Deze laatste context bepaalt nog steeds voor een belangrijk deel de discussies rond de bekostiging van het hoger onderwijs.

In dit onderzoek staat de wijze van bekostiging centraal: hoe worden publieke middelen over de aanbieders van hoger onderwijs verdeeld opdat zowel de overheidsdoelstellingen als de doelstellingen van de hoger onderwijs instellingen worden bereikt? Vragen en discussies rond het niveau van overheidsuitgaven aan hoger onderwijs komen in dit onderzoek niet aan de orde.

De bekostiging van het hoger onderwijs is in Nederland een onderwerp dat regelmatig op de agenda staat. Recentelijk vormen vouchers, vraagbekostiging en prestatiebekostiging onderwerp van gesprek. Verder is door de ontwikkelingen ten aanzien van de invoering van een bachelor-master structuur de rol van de overheid in de bekostiging van het hoger onderwijs opnieuw ter discussie gesteld.

Mede als inbreng in deze discussies wil het Ministerie van OCenW een helder beeld van de bekostigingsmechanismen en hun gebruik in andere hoger onderwijsstelsels. Andere modellen, criteria en mogelijke inzichten in de effecten van andere mechanismen kunnen het Nederlandse debat verrijken en de uitkomsten ervan verbeteren.

Eind 2000 heeft het Ministerie van Onderwijs, Cultuur en Wetenschappen het Center for Higher Education Policy Studies (CHEPS) gevraagd een vergelijkend onderzoek naar bekostigingsmechanismen voor hoger onderwijs in 10 landen uit te voeren. Het thans voorliggend verslag daarvan is een thematisch rapport in het kader van de CHEPS Higher Education Monitor[1].

0.1.2 De onderzoeksvragen

De bekostiging van hoger onderwijs is een breed onderwerp. Alle aspecten vanuit een internationaal vergelijkend perspectief mee te nemen zou de grenzen van het project te buiten gaan. Op grond van de oorspronkelijke centrale vraag – Hoe wordt hoger onderwijs in een aantal landen bekostigd? – hebben we ons een aantal beperkingen opgelegd. Ten eerste vormt de bekostiging van onderzoeksactiviteiten in principe geen onderdeel van de beschrijvingen. In een aantal landen zijn bekostiging van onderwijs- en onderzoeksactiviteiten echter nauw met elkaar verweven. Deze verwevenheid is ook in de desbetreffende bekostigingsmechanismen terug te vinden. In die gevallen zullen we bij de beschrijving van de bekostiging van de onderwijsactiviteiten niet kunnen ontkomen aan een beschrijving van de bekostiging van de verweven onderzoeksactiviteiten.
Verder richten we ons op initiële onderwijsactiviteiten en sluiten we dus post-initiële onderwijsactiviteiten, die vaak op afwijkende wijze worden bekostigd, uit. Ook hierbij geldt dat de eindigheid van projectmiddelen en tijd ons tot deze keuze gebracht hebben.
Een laatste beperking die we ons hebben opgelegd betreft het uitsluiten van private bekostigingsmechanismen. Op welke wijze de verstrekkers van die private middelen[2] hun middelen voor het verrichten van onderwijsactiviteiten ter beschikking stellen zal in dit rapport niet worden beschreven.

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[1] De 'CHEPS higher education monitor' is een langlopend onderzoeksproject gericht op het monitoren van hoger onderwijsstelsels en hoger onderwijsbeleid in (West) Europese landen. Het grootste deel van het onderzoek is aanbesteed door het Ministerie van Onderwijs, Cultuur en Wetenschappen. De 'CHEPS higher education monitor' bestaat uit gedetailleerde landenbeschrijvingen, thematische rapporten (waarin diepgaande vergelijkende analyses ten aanzien van beleidsrelevante hoger onderwijs onderwerpen worden uitgevoerd) en een database waarin kwalitatieve en kwantitatieve informatie over de hoger onderwijs stelsels systematisch wordt opgeslagen.
[2] Hiermee worden niet de bijdragen van cliënten (studenten) bedoeld.

De centrale onderzoeksvraag van dit onderzoek luidt: “Hoe wijzen overheden publieke middelen toe ten behoeve van (publiek bekostigde) initiële onderwijsactiviteiten in het hoger onderwijs in een aantal landen?

Op grond van deze centrale vraag en de hierboven geschetste beleidscontext zijn de volgende drie onderzoeksthema’s geformuleerd:

I. Een gedetailleerde beschrijving van de nationale bekostigingsstelsels
II. Een beschrijving van de nationale discussies en recente trends met betrekking tot de bekostiging van hoger onderwijs. In deze beschrijvingen zal in het bijzonder aandacht worden besteed aan de rol die bekostiging speelt als instrument bij onderwijsvernieuwingen.
III. Een bespiegeling op de invloed die een bekostigingstelsel kan hebben op de kwaliteit van het onderwijs. Er wordt gekeken naar de assumpties die ten aanzien van die (veronderstelde) invloed worden gehanteerd.

De gedetailleerde beschrijving van de nationale bekostigingsstelsels omvat de volgende elementen:

1. input en outputoriëntatie van de bekostiging
2. aanbod- dan wel vraagbekostiging
3. private bijdragen aan onderwijsactiviteiten
4. bijdragen van regionale overheden aan onderwijsactiviteiten
5. de wijze waarop - in geval van een recente aanpassing van de bekostigingsmethodiek - omgegaan wordt met ‘overgangsproblemen’ (herverdelingseffecten);
6. de wijze waarop studenten die meerdere opleidingen volgen meegeteld worden in de bekostiging.
7. de interne doorvertaling door de instellingen van de externe bekostiging in geval van lump sum bekostiging (indien mogelijk);

De informatie over de drie onderzoeksthema’s zal hieronder worden gepresenteerd.

0.1.3 Keuze van de landen

De informatie zoals die in de CHEPS Higher Education Monitor aanwezig is is als startpunt voor de dataverzameling genomen. In de CHEPS Higher Education Monitor zijn gegevens over negen 'kern'-hoger onderwijssystemen opgenomen (Oostenrijk, Denemarken, Finland, Vlaanderen, Frankrijk, Duitsland, Nederland, Zweden en het Verenigd Koninkrijk). Om de variëteit en de rijkdom van de vergelijkingen te vergroten is besloten (in overleg met de opdrachtgever) om Oostenrijk en Finland te vervangen door Australië, Nieuw Zeeland en Tennessee (USA).

0.1.4 Onderzoeksmethoden

De CHEPS Higher Education Monitor bevat een grote en gevarieerde collectie van (beleids) documenten die geanalyseerd zijn. Verder is gebruik gemaakt van het netwerk van interne en externe deskundigen dat CHEPS de afgelopen jaren in vele landen heeft opgebouwd. Andere bronnen, zoals internetpagina's en onderzoeksliteratuur, zijn waar nodig ook geconsulteerd.

0.1.5 Opbouw van het rapport

In het onderhavige hoofdstuk worden de resultaten van het project vanuit een vergelijkend perspectief gepresenteerd. De lijst van onderzoeksthema's en bijbehorende elementen volgend wordt een antwoord op de centrale vraag geschetst. Hoofdstuk 2 geeft een korte inleiding op het vervolg van het rapport. In de daaropvolgende hoofdstukken worden de gedetailleerde beschrijvingen van de landen gepresenteerd.

0.2 Bekostigingsstelsels beschreven

Bij de beschrijving van de bekostigingsstelsels gebruiken we de elementen die hierboven zijn opgesomd. De belangrijkste elementen zijn het onderscheid input- versus outputbekostiging en het onderscheid vraag- versus aanbodbekostiging.

0.2.1 Bekostiging op grond van input en outputcriteria

Input en output hebben betrekking op het 'productieproces' en kunnen als zodanig dienen als grondslag bij de toewijzing van publieke middelen aan onderwijsactiviteiten. Traditioneel werden onderwijsactiviteiten op grond van inputcriteria zoals aantallen ingeschreven studenten en vloeroppervlak bekostigd. In de jaren tachtig stond, mede onder invloed van de slechte economische situatie en de daaruit voortvloeiende politieke noodzaak tot bezuinigingen op de overheidsbegroting, in veel landen het begrip efficiencyverhoging centraal in de discussies over bekostiging. De veronderstelling is dat bekostiging op grond van inputs weinig prikkels voor

efficiënt gedrag bevat. Door output criteria, zoals aantal afgestudeerden en studiepunten, in de bekostigingsformules op te nemen wil de overheid het hoger onderwijs prikkelen om efficiënter te produceren.

In zes van de tien onderzochte landen worden alleen input criteria gebruikt bij de toedeling van publieke middelen aan initiële onderwijsactiviteiten: in Australië, Frankrijk, Vlaanderen[3], Duitsland, Nieuw Zeeland, Frankrijk en het Verenigd Koninkrijk.
In Tennessee zijn inputcriteria de voornaamste elementen in de bekostigingsformule. Slechts een beperkt deel van de publieke middelen wordt op grond van outputcriteria toegedeeld: maximaal 5,45% van de totale publieke middelen wordt op grond van prestatie-indicatoren toegedeeld (performance based funding).
In Nederland en Zweden nemen de output-criteria de belangrijkste plaats in in de bekostigingsformule. In de Nederlandse formule voor universiteiten bepaalt het aantal behaalde diploma's de helft van het onderwijsbudget. 13% van dat budget is gebaseerd op het aantal eerstejaars (input). De bekostigingsformule voor de Nederlandse hogescholen omvat een dynamische vraag factor ter weging van het aantal ingeschreven studenten. In deze factor worden het aantal behaalde diploma's en de studieduur (beide output criteria) meegenomen. De Zweedse formule kent twee belangrijke elementen: het aantal studiepunten dat in een instelling is geaccumuleerd (output) en het aantal ingeschreven studenten (input). Ervan uitgaande dat het numerieke rendement in Zweden lager is dan 100% zal het aandeel van de input criteria in de formule iets meer dan 50% zijn.
Het Deense bekostigingssysteem is het enige systeem dat geheel op output-criteria is gebaseerd. De studiepunten die door de studenten worden behaald vormen het enige criterium voor de toedeling van publieke middelen voor hoger onderwijsactiviteiten.

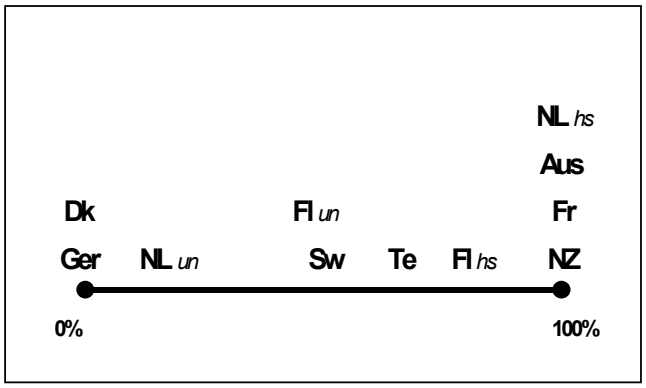
[3] In de Vlaamse bekostigingsformule voor universiteiten zijn ook output-elementen opgenomen maar die hebben enkel betrekking op post-initiële onderwijsactiviteiten.

Figuur 0.1: Positionering van landen naar bekostigingsgrondslag

Aus: Australië; Dk: Denemarken; Fl: Vlaanderen, Fr: Frankrijk, Ger: Duitsland; Nl: Nederland; NZ: Nieuw Zeeland; Sw: Zweden; UK: Verenigd Koninkrijk

Zoals hierboven reeds vermeld omvatten inputcriteria niet alleen studentaantallen. Ook fysieke inputcriteria (zoals vloeroppervlak) en vaste voeten worden als inputcriteria gezien. Voor de verdere analyses (zie volgende paragraaf) is het ook zinvol te weten welke rol het aantal studenten speelt in de bekostigingsformule. In onderstaande figuur wordt hiervan een overzicht gegeven.

Figuur 0.2: Positionering van landen naar belang van criterium studentaantallen in bekostigingsformule



NL*un*: Nederland universiteiten; NL*hs*: Nederland hogescholen

In Duitsland en Denemarken speelt het studentaantal bij de bepaling van de omvang van de publieke bekostiging van hoger onderwijsinstellingen geen rol. Voor Nederlandse universiteiten wordt 13% van de bekostiging door de instroom bepaald. In Zweden en in de Vlaamse universiteiten is ongeveer de helft van de uitkomst van de formule bepaald door studentaantallen;

in Tennessee is dat twee derde. Voor de bekostiging van de Vlaamse hogescholen wordt rond de 80% van de formule bepaald door studentaantallen. In de overige landen is het studentaantal het enige criterium. Daarbij moet worden aangetekend dat bij de weging van de studentaantallen bij de Nederlandse hogescholen de studieduur (een outputcriterium) wordt meegerekend. Voor het Verenigd Koninkrijk is het moeilijk aan te geven hoe groot het belang van het aantal studenten precies is. In wezen is de bekostigingsgrondslag historisch bepaald. Om te bepalen of de bekostiging in het licht van veranderingen in het aantal studenten nog adequaat is wordt een 'standaard-budget' berekend, waarbij het aantal studenten de enige grondslag is. Omdat we geen inzicht hebben in de mate waarin de standaard budgetten afwijken van de historisch bepaalde budgetten en omdat er een bandbreedte wordt gebruikt waarbinnen afwijkingen niet worden gecompenseerd is het niet eenduidig aan te geven waar het Verenigd Koninkrijk op bovenstaande schaal staat. Gezien de bandbreedte en de ontwikkelingen in studentaantallen verwachten we dat de Britse positie in de buurt van de Nederlandse universiteiten ligt.

In alle landen vindt een weging van de toedelingscriteria plaats. De gewichten (of tarieven) verschillen naar studierichting, niveau van het programma of het type instelling. Het aantal tarieven dat wordt gebruikt is in onderstaande tabel weergegeven.

Tabel 0.1: Aantal tarieven gebruikt bij de toedeling van publieke middelen voor hoger onderwijsactiviteiten (initieel onderwijs)

Australië	5
Denemarken	12
Duitsland	n.v.t.
Frankrijk	31
Nederland	7
Nieuw Zeeland	12
Tennessee	10
Verenigd Koninkrijk	4
Vlaanderen	3
Zweden	12

Bij de bekostiging zijn in sommige hoger onderwijsstelsels onderwijsactiviteiten en onderzoekactiviteiten met elkaar verweven. Deze verwevenheid is gebaseerd op de von Humboldtiaanse idee dat onderwijs en onderzoek in het hoger onderwijs onlosmakelijk met

elkaar verbonden zijn. In Australië, Duitsland, Frankrijk, Nieuw Zeeland en Vlaanderen omvat de bekostigingsformule zowel onderwijs- als onderzoekselementen. In Tennessee wordt één van de dertien elementen van de bekostigingsformule wel aangeduid als onderzoek maar de middelentoewijzing voor de faciliterende activiteiten die hieronder worden vervat is zeer beperkt. In de overige landen zijn geen duidelijke onderzoekselementen in de bekostiging van onderwijsactiviteiten opgenomen.

In zeven landen heeft de bekostigingsformule een verdelend karakter: de resultaten van de formuleberekening worden gebruikt om een vooraf vastgelegd budget te verdelen over de instellingen. Het totale budget wordt vastgesteld in andere (politieke) arena's. In Denemarken en Nieuw Zeeland is er sprake van een zekere mate van open eind bekostiging. De resultaten van de formuleberekening bepalen de daadwerkelijke omvang van de toe te wijzen middelen, maar ook hier zullen tarieven worden bijgesteld als de groei van het budget te groot dreigt te worden. In Duitsland wordt geen formule gebruikt.

0.2.2 Aanbod- en vraaggestuurde bekostiging

Het onderscheid tussen vraagbekostiging en aanbodbekostiging is de tweede dimensie die we bij de beschrijving van bekostigingsstelsels voor het hoger onderwijs gebruiken. Er bestaat een veelheid van definities en omschrijvingen van beide begrippen. Dit leidt veelal tot verwarring in de discussies over voor- en nadelen van vraag- en aanbodbekostiging. In dit rapport wordt als vertrekpunt een recht toe recht aan onderscheid tussen beide vormen van bekostiging gebruikt bij de karakterisering van de bekostigingsstelsels van de tien landen. Vervolgens worden er twee alternatieve omschrijvingen van vraagbekostiging gepresenteerd die in de literatuur en publieke discussies regelmatig worden gebruikt.

In hoeverre er sprake is van vraag- dan wel aanbodbekostiging wordt in onze ogen bepaald door de vraag wie de publieke middelen ter bekostiging van onderwijsactiviteiten in eerste instantie in handen krijgt. Als de hoger onderwijsinstellingen de middelen direct van de overheid krijgen dan is er sprake van aanbodbekostiging. Krijgen de studenten (de vragende partij) de beschikking over de middelen om daarmee onderwijsactiviteiten in te kopen dan is er sprake van vraagbekostiging.
In het geval van aanbodbekostiging wordt de hoogte van het budget dat een aanbieder krijgt bepaald op grond van historische overwegingen en/of op grond van ‘bestuurlijke’ criteria, zoals die in de bovenstaande paragraaf zijn beschreven.

De discussies over vraagbekostiging in het hoger onderwijs kunnen we plaatsen in het perspectief van het bredere debat over de invoering en uitbreiding van marktgerichte sturing in de publieke sector. Eén van de uitgangspunten bij die discussies is de veronderstelling dat door het centraal stellen van de cliënt (student) meer tegemoet wordt gekomen aan de wensen van de cliënt. Daarnaast zal de student, doordat hij de beschikking krijgt over een bepaalde gelimiteerde hoeveelheid publieke middelen, zich meer bewust zijn van de schaarsheid van de publieke middelen en deze daarom kritischer (dus efficiënter) aanwenden bij het verwerven van onderwijsdiensten.[4]
Bij vraagbekostiging krijgen studenten de beschikking over de aanwending van publieke middelen voor onderwijsactiviteiten, hetzij in de vorm van geld, hetzij in de vorm van

[4] Voor een gedetailleerdere beschrijving van bekostiging met vouchers zie Jongbloed en Koelman (2000)

tegoedbonnen (vouchers). Deze vorm van vraagbekostiging hebben we in geen van de tien landen aangetroffen. In Australië en Nieuw Zeeland zijn er wel initiatieven ontplooid om een vouchersysteem in te voeren. De zeer ingrijpende gevolgen voor instellingen en het overheidsbudget alsmede de grote onzekerheid over de effecten van de invoering hebben er echter toe geleid dat deze plannen geen vervolg hebben gekregen. In Nederland is een beperkt voucher experiment in 2001 gestart, maar gezien de wijze waarop het experiment is vormgegeven is het twijfelachtig of hierbij sprake is van daadwerkelijke vouchers.[5] De invoering van vouchers op grotere schaal wordt op korte termijn niet voorzien.

0.2.2.1 Studiefinanciering als vraagbekostiging

In de literatuur wordt (publieke) studiefinanciering regelmatig ook als een vorm van vraagbekostiging beschouwd. De redenering is dat studiefinanciering een tweede stroom van publieke middelen is die via de studenten uiteindelijk bij de aanbieders van onderwijsdiensten terechtkomt. Deze stroom bestaat uit de publieke beurzen die studenten (voor een deel) kunnen aanwenden om collegegeld aan de hoger onderwijs instelling te betalen.

Uitgaande van die redenering kunnen we aan de hand van de hoogte van de publieke studiebeurzen en de hoogte van de collegegelden[6] bepalen in hoeverre er in de tien beschreven bekostigingsstelsels sprake is van deze vorm van vraagbekostiging. In onderstaande tabel geven we een overzicht van de gemiddelde beurzen[7] die studenten van de overheden ontvangen. Daarnaast presenteren we de collegegelden die studenten aan publieke hoger onderwijsinstellingen moeten betalen. De laatste kolom van de tabel bevat een inschatting van de mate van vraagbekostiging via studiefinanciering. Daarbij is gekeken in hoeverre het collegegeld in principe uit de beurs kan worden betaald.

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[5] Na een lange periode van discussie (bijna 15 jaar) is het eerste 'voucher'-experiment in Nederland op 1 januari 2001 gestart. Het experiment is een gezamelijke inspanning van 10 hogescholen en zes bedrijven uit het midden en kleinbedrijf. Voor wat betreft het curriculum, kunnen de studenten cursussen volgen aam 10 deelnemende hogescholen, hetgeen de competitie tussen deze instellingen moet vergroten. De branche organisaties hopen op deze manier hun relatie met het hoger onderwijs te versterken, het probleem van tekorten op de arbeidsmarkt te lijf te gaan en gebruik te maken van de kennis van studenten voor innovaties.

[6] De informatie over collegegelden is noodzakelijk omdat beurzen voor een deel voor de dekking van kosten van levensonderhoud gebruikt (kunnen) worden. Dit laatste betreft geen bekostiging van onderwijsactiviteiten waardoor ze buiten het kader van dit onderzoek vallen.

[7] Bij de berekening van de gemiddelde beurs wordt rekening gehouden met de gemiddelde beursbedragen en het percentage van de reguliere (voltijd) studenten die een beurs ontvangen.

Studieleningen zien we niet als publieke middelen. Hoewel deze leningen door de overheid worden verstrekt moeten de studenten ze uiteindelijk terugbetalen. De hieronder vermelde resultaten hebben daarom alleen betrekking op publieke beurzen[8].

In het algemeen is er in landen waar geen collegegelden worden geheven geen sprake van vraagbekostiging via studiefinanciering. Dit is het geval in Denemarken, Duitsland en Zweden. In landen met lage collegegelden, zoals Vlaanderen en Frankrijk, is daarom sprake van een zeer beperkte mate van vraagbekostiging. Het enige land waar de hoogte van collegegelden aanzienlijk is en waar studenten deze collegegelden gemiddeld genomen met de publieke beurzen zouden kunnen betalen is Nederland. In de resterende landen (Australië, Nieuw Zeeland, Tennessee en het Verenigd Koninkrijk) zijn de collegegelden weliswaar hoger dan in Nederland, maar zijn de gemiddelde beursbedragen aanzienlijk lager dan in Nederland. Vandaar dat de mate van vraagbekostiging via studiefinanciering voor die landen slechts als 'beperkt' tot 'zeer beperkt' wordt aangemerkt.

Tabel 0.2: Jaarlijkse gemiddelde beurs per student, gemiddelde collegegeld (1999-2001, in €) en mate van vraagbekostiging van hoger onderwijs instellingen via studiefinanciering

	gemiddelde beurs	collegegeld	mate van vraagbekostiging via studiefinanciering
Australië	650	1850-3250	zeer beperkt
Denemarken	3750	0	geen
Vlaanderen	342	100-600	zeer beperkt
Frankrijk	494	200-850	zeer beperkt
Duitsland	374	0	geen
Nederland	1750	1300	aanzienlijk
Nieuw Zeeland	725	1200-2600	beperkt
Zweden	2150	0	geen
Tennessee	1100	1600-3800	beperkt
Verenigd	700	1700	zeer beperkt

bron: CHEPS berekeningen, 2001

De omvang van deze vorm van vraagbekostiging is beperkt. Op grond van CBS-gegevens kan worden berekend dat in Nederland maximaal 20% van de publieke middelen op deze wijze

[8] Eenvoudigheidshalve nemen we indirecte subsidies verbonden aan leningen (zoals rente subsidies en kwijtschelding van schulden) niet mee in onze beschouwingen.

wordt gealloceerd[9]. In de andere negen landen zal dit aandeel kleiner zijn. In onderstaande figuur zijn de landen op de mate van vraagbekostiging via studiefinanciering gepositioneerd.

Figuur 0.3: Positionering van bekostigingsstelsels naar mate van vraagbekostiging (via studiefinanciering)

0.2.2.2 Student-gerelateerde aanbodbekostiging als vraagbekostiging

Een tweede alternatieve omschrijving van vraagbekostiging gebruikt als onderscheidend criterium 'Geld volgt de student'. Volgens deze redenering is er ook sprake van vraagbekostiging als het studentaantal een (belangrijke) component in de bekostigingsformule van de hoger onderwijsinstellingen is. De studenten kunnen door hun studiekeuze (stemmen met de voeten) invloed uitoefenen op de budgetten van de aanbieders (de hoger onderwijsinstellingen).

Gebruiken we de resultaten zoals die in figuur 0.2 zijn weergegeven dan verschijnt een heel ander beeld van de mate van vraagbekostiging. In vier landen vindt de bekostiging geheel als vraagbekostiging plaats terwijl in slechts twee landen het gebruik van vraagbekostiging geheel ontbreekt. In Nederland is deze vorm van vraagbekostiging voor wat betreft de universiteiten beperkt. In de plannen voor de hogescholen wordt de huidige hoge mate van vraagbekostiging (volgens deze definitie) ook sterk beperkt.

Bij deze omschrijving van vraagbekostiging moeten we echter een kritische kanttekening plaatsen. Vraagbekostiging is primair gericht op het stimuleren van individuele keuze van

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[9] In 1998 bedroegen de inkomsten uit collegegelden van hogescholen Hfl735 mln. en van universiteiten rond de Hfl400 mln. De inkomsten uit de rijksbijdrage bedroeg voor hogescholen Hfl2414 en Hfl4142 voor universiteiten. Ervan uitgaande dat rond 40% van de rijksbijdrage voor universiteiten aan onderzoek toekomt resulteert dit in een aandeel van de collegegeld inkomsten in de totale publieke inkomsten

studenten door het vergroten van de consumentensouvereiniteit. Student-gerelateerde aanbodbekostiging zou als vraagbekostiging kunnen worden gezien als aan de voorwaarden voor marktwerking op de hoger onderwijsmarkt zou worden voldaan. Deze voorwaarden omvatten onder andere vrije toegang van aanbieders en cliënten tot de markt, transparantie van de markt (omvang en kwaliteit) en het functioneren van een prijsmechanisme (mogelijkheid tot prijs- en kwaliteitsdifferentiatie) (zie Bartlett en Le Grand). In vrijwel alle hier onderzochte landen is aan deze voorwaarden echter bij lange na niet voldaan. We beschouwen student-gerelateerde aanbodbekostiging daarom niet als een vorm van vraagbekostiging.

0.2.3 Bijdragen van regionale en locale overheden

Bijdragen van regionale en lokale overheden aan de bekostiging van initieel hoger onderwijsactiviteiten zijn geen gemeengoed in de onderzochte landen. In Frankrijk fourneren regionale en locale overheden ongeveer 5% van de inkomsten van hoger onderwijs instellingen. In andere landen is dit percentage lager of nihil.
Regionale en locale bijdragen hebben een aanvullend karakter. In federale systemen kan dat anders liggen. In twee van de drie federale systemen (USA en Duitsland) ligt de primaire verantwoordelijkheid bij de 'State' of het 'Land'. De publieke middelentoewijzing door *States* en *Länder* wordt daarom niet als regionale bijdrage beschouwd. In Australië ligt de primaire verantwoordelijkheid voor de bekostiging op het federale niveau (Commonwealth).

0.2.4 Overgangseffecten

Bekostigingsmechanismen hebben een wezenlijke invloed op de publieke middelen die een hoger onderwijs instelling ontvangt. Veranderingen in het bekostigingsmechanisme zullen dan ook een invloed hebben op de middelen die individuele hoger onderwijs instellingen ontvangen: sommige zullen verliezen, andere zullen winnen. Het eerste wordt gezien als een ongewenst effect van veranderingen in bekostigingsmechanismen. De continuïteit van die hoger onderwijs instellingen kan dan namelijk gevaar lopen. Daarom wordt bij veranderingen in het bekostigingsmechanisme rekening gehouden met overgangseffecten.

(collegegelden plus rijksbijdrage) van iets minder dan 20% (bron: CBS Statline: Inkomsten van instellingen).

In vier landen is het bekostigingsmechanisme 'recentelijk' gewijzigd. In Zweden is het mechanisme gewijzigd in 1993. Het verlies van middelen bij sommige hoger onderwijs instellingen dat bij toepassing van het nieuwe mechanisme zou zijn ontstaan is door de overheid volledig gecompenseerd. Dit had een stijging van de publieke uitgaven voor hoger onderwijs tot gevolg. In Denemarken is in 1994 het taximeter-model ingevoerd. De invoering van het taximeter-model diende tijdens het eerste jaar budgettair neutraal plaats te vinden en mocht ook niet leiden tot reallocatie tussen de hogeronderwijsinstellingen. Deze twee voorwaarden hebben een grote invloed gehad op de berekening van de taximeter-tarieven. De 'pijn' voor sommige instellingen werd verzacht door aanpassing van de tarieven. In Nederland is het bekostigingsmodel recentelijk gewijzigd. De wijziging van het Britse model in 2000 had geen al te grote reallocatie effecten. Door het gebruik van de historisch bepaalde budgetten als uitgangspunt en het gebruik van bandbreedtes ter demping van fluctuaties in de bekostiging ten gevolge van schommelingen in de studentaantallen zijn de overgangseffecten te een minimum beperkt.

0.2.5 Dubbeldiplomering

Normaliter schrijven studenten zich voor slechts één programma in en verlaten zij het hoger onderwijssysteem na het behalen van het eerste afsluitende diploma. Er is echter een kleine groep studenten die voor twee of meer programma's zijn ingeschreven of die voor een tweede programma na hun eerste diploma inschrijven.[10] Voor dit onderzoek is het relevant hoe deze studenten en hun prestaties in het bekostigingsmodel worden meegerekend.
In het algemeen kunnen we stellen dat in landen waar output-criteria worden gebruikt in de bekostigingsformule (Denemarken, Nederland, Zweden, Frankrijk en Tennessee) de prestaties van studenten die dubbel staan ingeschreven worden meegeteld. In landen waarin studenten of eerstejaars als criterium worden gebruikt verschilt de situatie echter. Studenten die in een tweede programma zijn ingeschreven na het behalen van een eerste diploma worden in de meeste landen (met uitzondering van Duitsland) meegeteld. Studenten die in twee programma's aan verschillende hoger onderwijs instellingen tegelijkertijd zijn ingeschreven worden twee keer geteld in de meeste landen, met uitzondering van Duitsland en Vlaanderen. Studenten die twee studies volgen aan dezelfde instelling worden alleen in Nieuw Zeeland en het VK twee keer

[10] Deze opmerkingen hebben geen betrekking op studenten die in een post-initieel programma inschrijven.

meegeteld. In Zweden en Tennessee is de situatie niet duidelijk. In de resterende landen worden die studenten niet meegerekend.

0.2.6 Interne allocatie

In alle landen behalve Duitsland worden de publieke middelen voor onderwijsactiviteiten als een lump sum ter beschikking gesteld[11]. Hoger onderwijs instellingen zijn daarom vrij om binnen vrij algemene en brede kaders die middelen naar hun eigen goeddunken te besteden. Instellingen verdelen de publieke middelen intern via een toewijzingsmodel. Voor die interne toewijzingsmodellen bestaan echter geen nationale regels. Voor het onderhavig onderzoek betekent dit dat het opstellen van een overzicht van de gebruikte interne allocatiemodellen een zodanige inspanning vergt dat dit geheel buiten de grenzen van dit project zou komen te vallen.

Verwacht mag worden dat er enerzijds verschillen tussen de instellingen zullen zijn, doch dat instellingen anderzijds doorgaans niet te ver van het landelijke allocatiemodel zullen willen (of kunnen) afwijken. Voor Nederland (ten tijde van het HOBEK-model) wordt deze verwachting in ieder geval bevestigd door Koelman (1995) en Jongbloed (1995).[12] De mate van professionalisering van het (financieel) management van instellingen is overigens in dit verband een belangrijke variabele. Wanneer het financieel beheer goed ontwikkeld is, zal eerder een wat van het landelijk model afwijkende interne allocatie verwacht mogen worden.

0.3 Recente discussies en trends

Het tweede onderzoeksthema heeft betrekking op de recente discussies en trends met betrekking tot de publieke bekostiging van hoger onderwijs. De belangrijkste onderwerpen beschrijven we hieronder.

Het eerste onderwerp is de keuze van de criteria waarop de toewijzing van publieke middelen voor hoger onderwijsactiviteiten is gebaseerd. In Nederland en Vlaanderen zijn er plannen om het gewicht van output-criteria in de bekostiging te vergroten. In de bekostiging van Nederlandse

[11] In Duitsland lopen experimenten met het gebruik van lump sums. De lump sum is ook in het Franse hoger onderwijs vrij beperkt omdat, net als in Duitsland, de uitgaven voor personeel door de centrale overheid worden verricht.

hogescholen zal het output karakter worden vergroot door het gebruik van eerstejaars, studiepunten en diploma's als criteria. In Vlaanderen heeft de regering de bestaande situatie (input georiënteerd) bevroren en overweegt ze een nieuw bekostigingsmechanisme met veel output elementen. In Denemarken en Zweden (beide bekostigingsmechanismen met een sterke output-oriëntatie) vindt een debat plaats over de vraag of een deel van het studiepunten-criterium kan worden vervangen door een diploma criterium. Op deze wijze probeert de Deense overheid de hoger onderwijs instellingen te prikkelen om hun studenten te stimuleren een diploma te behalen.

In een aantal landen hebben de bekostigingssystemen zich ontwikkeld tot zeer ingewikkelde stelsels. Het groot aantal criteria en tarieven hebben de bekostigingsmechanismen ondoorzichtig gemaakt. Formule bekostiging en zeker output bekostiging zijn ontwikkeld om een efficiënt en effectief gedrag van de hoger onderwijs instellingen te stimuleren. Daartoe moeten bekostigingsmechanismen een heldere boodschap overbrengen naar de hoger onderwijs instellingen: welke gevolgen in de omvang van de bekostiging kan een instelling verwachten bij een wijziging van haar gedrag? Het gebrek aan transparantie staat deze werking van het bekostigingsmechanisme in de weg. In Denemarken, Nieuw Zeeland en Zweden zijn initiatieven om het aantal tarieven te verlagen. In het Verenigd Koninkrijk is dat gebeurd.

Een verschijnsel dat populair wordt is het gebruik van contracten als een aanvullende manier om initiële hoger onderwijsactiviteiten te bekostigen. Dergelijke contracten worden gebruikt in Duitsland, Frankrijk, Zweden, Australië en Nieuw Zeeland. Het karakter van de contracten in deze landen verschilt. In Duitsland worden de contracten gebruikt in stadstaten zoals Bremen. In plaats van een uitgebreid verdelingsmodel stelde de overheid een contract op tussen de hoger onderwijs instellingen en de overheid. De reden hiervoor was dat het makkelijker was om een contract te sluiten met een beperkt aantal instellingen dan een algemeen bekostigingsmodel dat aan de wensen van alle instellingen en de overheid tegemoet komt. De contracten in Nieuw Zeeland en Australië hebben een veel beperktere reikwijdte. Ze omvatten een overeenstemming tussen de staat en de hoger onderwijs instelling over het aantal studenten dat zal worden bekostigd. De Franse contracten zijn overeenkomsten tussen een hoger onderwijs instelling en overheden. In deze contracten geeft de hoger onderwijs instelling aan welke activiteiten ze zal

[12] Dit te verwachten beeld werd ook geschetst door enkele contactpersonen uit de onderzochte landen (onder andere uit Zweden en het Verenigd Koninkrijk).

uitvoeren en waarvoor de overheden middelen ter beschikking stellen. Deze activiteiten kunnen het aanbod van programma's omvatten, programmahervormingen, de relatie tussen locale en regionale gemeenschappen en de hoger onderwijs instelling etc.

In enkele landen is de invoering van vraagbekostiging onderwerp van discussie geweest. In Australië en Nieuw Zeeland zijn de voorstellen ter invoering van vraagbekostiging niet uitgevoerd. In Nederland staat het onderwerp vouchers weer op de agenda. In het HOOP 2000 zijn experimenten met de invoering van vouchers aangekondigd maar die grootschalige experimenten zijn (voorlopig) van de baan. In de plannen voor een nieuw bekostigingsstelsel voor de hogescholen spelen voucher elementen geen rol.

Duitsland blijkt het enige land waar de publieke bekostiging nog niet op grond van formules wordt berekend en de middelen nog niet als lump sum ter beschikking worden gesteld. In een aantal Länder lopen echter experimenten om de *Globalhaushalt* en formulebekostiging in te voeren.

Als laatste punt van deze opsomming vestigen we de aandacht op de veranderingen in studiefinancieringsstelsels zoals die in Frankrijk en Duitsland zijn of worden doorgevoerd. In beide landen zullen meer studenten in aanmerking komen voor studiefinanciering en zullen de beurzen worden opgetrokken.

Bekostiging en vernieuwingen

In de meeste landen worden de publieke middelen voor initiële onderwijsactiviteiten als lump sum ter beschikking gesteld. Hierdoor kan de overheid niet via deze middelen specifieke (vernieuwing)activiteiten direct stimuleren. Het gebruik van contracten (in het bijzonder de Franse variant) geeft de overheid die mogelijkheid wel, zij het dat door de betrekkelijk kleine omvang van de daarmee gemoeide middelen de impact van deze sturing niet moet worden overschat.

De ontwikkeling en implementatie van specifieke vernieuwingen kan direct via geoormerkte budgetten worden gestuurd. In de meeste landen wordt van dergelijke budgetten gebruik gemaakt. De negatieve kant van deze directe sturing betreft de hoge beleids- en

implementatiekosten en de spanning tussen directe sturing en de autonomie van de hoger onderwijs instelling.

0.4 Bekostiging en kwaliteit

Het derde onderzoeksthema is een bespiegeling op de invloed die een bekostigingsmechanisme kan hebben op de kwaliteit van onderwijs. Welke veronderstellingen worden gebruikt ten aanzien van die relatie?

Kwaliteit is een multidimensioneel concept waarvoor geen eenduidige en onbetwiste definitie kan worden gegeven. Ieder van de vele stakeholders in hoger onderwijs heeft zijn eigen doelstellingen met betrekking tot het onderwijs. De mate waarin deze doelstellingen worden verwezenlijkt kan worden gezien als het niveau van de kwaliteit van hoger onderwijsactiviteiten.

In onze bespiegeling over de relatie tussen publieke bekostiging en de kwaliteit van het onderwijs beperken we ons tot één stakeholder en haar doelstellingen: de overheid die de middelen verstrekt. Haar perceptie van de kwaliteit bepaalt of en zo ja welke veranderingen aan het bekostigingsmechanisme noodzakelijk zijn.

In alle landen is er een fundamentele relatie tussen bekostiging en kwaliteit: onderwijsactiviteiten moeten aan bepaalde minimum standaarden voldoen willen ze voor publieke bekostiging in aanmerking komen. De meeste veranderingen in bekostigings-mechanismen zijn echter niet vanuit kwaliteitsoverwegingen in gang gezet. Het belangrijkste doel van de meeste veranderingen is om de allocatieve efficiëntie van het systeem te verhogen. In hoeverre die veranderingen ook een effect hebben op de kwaliteit van het onderwijs is een vraag van de tweede orde.

In een aantal landen zijn output-criteria geïntroduceerd, voornamelijk om de efficiëntie van het onderwijs te vergroten. In Denemarken, waar de bekostiging geheel op output-criteria is gebaseerd, werd bij de invoering van het nieuwe stelsel gevreesd dat het tot een verlies aan kwaliteit van het onderwijs zou leiden. Aangezien hoger onderwijs instellingen beloond worden naar behaalde studiepunten bestaat de verleiding om ter wille van de productie van studiepunten de kwaliteitsnormen te verlagen. Deze vrees bleek echter ongegrond (zie Canton en Van der Meer, 2001)

In Tennessee kunnen de hoger onderwijs instellingen een klein deel van hun bekostiging verdienen met een hoge score op een aantal prestatie-indicatoren voor onderwijs. Deze indicatoren hebben niet alleen betrekking op de onderwijskundige aspecten, maar ook op het oordeel van andere stakeholders zoals studenten, alumni en werkgevers. Er zijn echter twijfels over de effectiviteit van dit performance based funding op de kwaliteit van het onderwijs. Het stelsel heeft zijn eigen bureaucratie gecreëerd en het academisch personeel is niet (direct) betrokken bij de meting van de kwaliteit.

In Frankrijk legt de overheid de nadruk op de relatie tussen hoger onderwijs instellingen en hun regionale en locale omgeving. Dit wordt als een belangrijk aspect van de kwaliteit van het hoger onderwijs gezien. Het gebruik van contracten, waarin die relatie een belangrijke rol speelt, zal daardoor de kwaliteit van het onderwijs in het Franse hoger onderwijs verhogen.

Een andere indicator voor de relatie tussen bekostiging en kwaliteit kan worden gevonden in het gebruik van evaluaties als input voor bekostigingsbeslissingen. Hoewel slechte prestaties in de meeste kwaliteitszorgsystemen officieel kunnen leiden tot stopzetting van publieke bekostiging, blijkt dat in praktijk vrijwel nooit te gebeuren (zie Vossensteyn *et al*, 1998)

Afgezien van de voorbeelden hierboven beschreven is de directe lijn tussen bekostiging en kwaliteit zeer dun. In sommige landen wordt gezegd dat een verandering van het bekostigingsstelsel zal bijdragen aan de verbetering van de kwaliteit van het onderwijs maar hoe dat zijn beslag zou moeten krijgen wordt niet gespecificeerd. Hierbij moet worden opgemerkt dat overheden in hun beleid ten aanzien van kwaliteit veelal andere instrumenten dan bekostiging hebben ontwikkeld. In de kwaliteitszorgsystemen speelt bekostiging als instrument geen hoofdrol.

0.5 Tot slot

Discussies over veranderingen in het bekostigingsstelsel zijn vaak aanleiding voor commotie in het hoger onderwijs veld. Dit is niet verwonderlijk aangezien dergelijke veranderingen tot een herverdeling van publieke middelen kunnen leiden. Hoewel er in de tien onderzochte landen veel wordt gesproken over veranderingen in bekostigingstelsels is het aantal ingrijpende veranderingen beperkt. Zo is het vergroten van de rol van output-criteria in bekostigingsformules

wel in een aantal landen onderwerp van gesprek, maar alleen in Vlaanderen en Nederland zijn de plannen geconcretiseerd. Ook over vraagbekostiging wordt in veel landen gepraat. De directe vormen van vraagbekostiging (zoals vouchers) zijn echter (nog) niet ingevoerd.
Deze 'magere' resultaten in termen van geconstateerde veranderingen komen wellicht ten dele voort uit de beperkte reikwijdte van het onderzoek (geen post-initieel onderwijs en geen onderzoek) en de sterke ontwikkeling van andere inkomstenbronnen van hoger onderwijsinstellingen. Bij dit laatste spelen de overheidsmiddelen die via specifieke regelingen worden toegewezen en de groei van middelen verkregen uit contractactiviteiten een rol. Doordat deze de laatste tien jaar sterk zijn gestegen is het relatieve belang van de 'basisbekostiging' door de overheid relatief verminderd.

Ondanks deze relativeringen zijn de beschrijvingen en classificeringen van bekostigingsstelsels zoals in dit rapport vastgelegd van groot belang voor het verwerven van inzicht in de effecten en effectiviteit van verschillende verschijningsvormen van bekostigingsstelsels. Om vast te kunnen stellen hoe het gedrag van hoger onderwijsinstellingen (de aanbieders) en de studenten (de vragers) verandert bij een verandering van bekostigingsstelsel is een gedegen beschrijving van de bestaande bekostigingsstelsels noodzakelijk.

1 Summary and reflection

1.1 Introduction

1.1.1 The policy context

Public expenditure on higher education is a significant part of total public expenditure. This is justified by the crucial role higher education plays in the development of national economies and societies into knowledge-based economies and societies. Modern societies need to invest in teaching and research to keep up with the growing competition in the rapidly evolving global economy. In these debates, the role of public funding is reiterated once again.
In the 1980s the debate regarding funding was in the context of financial stringency and therefore focussed on efficiency. In the 1990s, the neo-liberalism (and neo-socialism) took hold in a number of Western European countries, leading to more attention for market type mechanisms. In this context, the role of public funding of higher education is discussed.

In this study the primary focus is on the funding mechanisms for higher education: How are public resources allocated among higher education institutions in order to achieve both governmental as well as institutional goals. Questions and debates regarding the level of public funding of higher education are beyond the scope of this report.

The funding of higher education is a recurrent topic in Dutch higher education policy debates. Recently, vouchers, demand-side funding, and performance based funding have been discussed. In addition, the developments regarding the introduction of a bachelor-master structure in Dutch higher education has put the role of the government in funding higher education on the agenda once more. As an important input in these discussions, the Dutch Ministry of Education, Culture and Science wants to have a clear picture of the funding mechanisms and their use in a number of other higher education systems. Different models, criteria and possible insights in the effects of different mechanisms may enrich the Dutch debate and improve the outcomes of it.

At the end of 2000, the Dutch Ministry of Education, Culture and Science commissioned a comparative study regarding the funding mechanisms in ten higher education systems to the

Center for Higher Education Policy Studies. The study is a thematic report within the framework of the CHEPS Higher Education Monitor[13].

1.1.2 The research questions

The funding of higher education is a very broad field. Covering all aspects of the field from a comparative perspective would be beyond the scope of the project. Based on the initial central question – How is higher education funded in a number of countries? – a number of limitations were decided upon. First, funding of research activities within higher education institutions is excluded. However, in a number of higher education systems, teaching and fundamental research activities are closely linked to each other, which also is reflected in the funding mechanism. In those cases the funding of teaching related research activities will be described, be it in less detail. Second, funding of post-initial or post-graduate courses is also excluded. The focus is on those programmes that lead to a first degree (in Anglo Saxon systems this would be a bachelor degree). These programmes are traditionally geared towards the young student who, following his or her secondary education seeks a first degree. The variety is in ways post-graduate programmes are funded and the lack of reliable information on this are the min reasons for this limitation. A similar reasoning is used to exclude private fundingmechanisms.

The central research question to be answered in this report is: 'How do governments allocate public funds to (publicly funded) initial teaching activities in higher education in a number of countries?'

From this central question and the policy context described in the previous section, we derived the following three research issues:

I. A detailed description of the national funding mechanisms
II. A description of the national discussions and recent trends regarding funding of higher education. In these descriptions, specific attention will be paid to the role funding mechanisms play in educational innovations.

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[13] The 'CHEPS higher education monitor' is an ongoing research project aimed at the monitoring of higher education systems and higher education policies in (Western) European countries. A major part of the project is commissioned by the Dutch Ministry of Education, Science and Culture. The 'CHEPS higher education monitor' consists of in-depth country reports, (describing national systems and policies), thematic reports (providing in-depth comparative analyses of major issues in higher education research), and a database with quantitative and qualitative information on the higher education systems.

III. A reflection on the impact of the funding mechanism on the quality of teaching. What assumptions are used regarding that (presumed) impact?

The detailed description of the national funding mechanisms will be the main part of the report. The description consists of the following elements:

1. input- and output-orientation of funding
2. supply- or demandside character of funding
3. private contributions to teaching activities (fees)
4. contributions of regional public authorities to the funding of teaching activities
5. transition problems in case the funding mechanism was changed recently
6. students simultaneously enrolled in two programmes
7. internal allocation mechanisms as used by higher education institutions (optional)

The information on the three main issues will be presented below.

1.1.3 Countries selected

The information available in the CHEPS Higher Education Monitor is the starting point for the data collection. In the CHEPS Higher Education Monitor, there are nine 'core' higher education systems (Austria, Denmark, Finland, Flanders, France, Germany, the Netherlands, Sweden and the United Kingdom). In order to increase the variety and richness of the comparison, it was decided (by the ministry and the researchers) to replace Austria and Finland with Australia, New Zealand and Tennessee (USA).

1.1.4 Methods used

The CHEPS Higher Education Monitor contains a wide variety of (policy)documents that were scanned and analysed (when relevant). In addition, the network of internal and external experts CHEPS has built in the various countries over the years has been used. Other sources like internetpages, as well as research literature have been analysed to collect the information needed.

1.1.5 Structure of the report

In the current chapter an overview of the results of the project is presented from a comparative perspective. Following the list of research issues and their elements, an answer to the central research question is sketched. The next chapter provides a brief introduction to the study. The second part of the report consists of the detailed case descriptions.

1.2 Funding mechanisms described

For the description of the fundingmechanisms we use the element that are listed above. The main elements are the input- versus outputfunding dimension and the supply- versus demandside dimension.

1.2.1 Input- and output-oriented funding

Input and output refer to the criteria that are used to allocate public funds to teaching activities. Traditionally the public funding of higher education is input oriented. Criteria like the number of students enrolled or square meters of floor surface are frequently used input criteria. In the 1980s, in many countries efficiency became the leading principle in discussions regarding funding, due to the economically bad situations and the political urge to cutback on the public budget. It is assumed that input-based funding does comprise only few incentives for an efficient operation of higher education. Introducing output criteria in the funding formula, like the number of graduates or the number of study-credits obtained was and still is seen as a way to increase the incentives for efficient production.

Six out of the ten countries in this report only use input criteria in allocating public funds to teaching activities: in Australia, Flanders[14], Germany, New Zealand, France, and the United Kingdom. In Tennessee input-criteria are the most important criteria in the allocation of public resources for teaching activities. Only a small part of the public funds is allocated on an output basis. Only 5.45% (or less) is allocated as performance based funding.

In the Netherlands and Sweden, the funding mechanisms are based for a substantial part on output criteria in addition to some input criteria. In the Dutch funding formula for universities, the number of diplomas determines half of the teaching budget. 13% of the budget are based on the number of new entrants (input). The funding formula for Dutch hogescholen comprises a 'dynamic demand factor' that is used to weight the number of students enrolled. In that factor the number of degrees awarded and the time of completion are incorporated. In the Swedish formula, the number of credits accumulated in an institution and the number of fte students enrolled determine the teaching budget for that institution. The part of outputcriteria is slightly less than 50%.

Finally, the Danish funding mechanism is the only system that is fully output-oriented. The studypoints achieved by students are the only criterion for the allocation of public teaching funds.

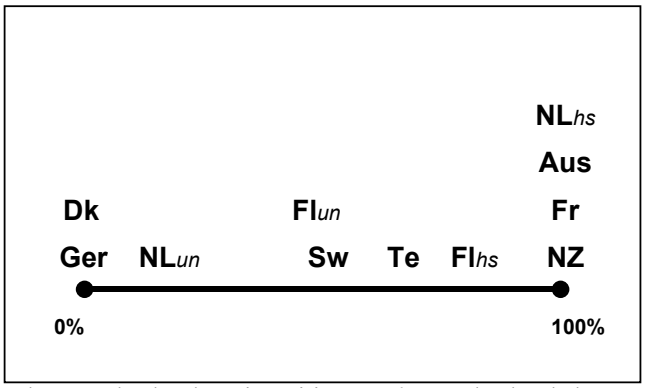
[14] In Flanders, the formula for universities comprises also output elements but these refer to post-initial teaching activities.

Figure 1.1: Positioning of countries by funding base

Aus: Australia; Dk: Denmark; Fl: Flanders; Fr: France; Ger: Germany; Nl: the Netherlands; NZ: New Zealand; Sw: Sweden; UK: United Kingdom

As mentioned before, inputcriteria do not refer to enrolment solely. Physical criteria like floorsurface, and fixed amounts are considered to be inputcriteria. For analysis purposes it is also relevant to describe the role enrolment plays in the fundingmechanisms. The figure below provides an overview.

Figure 1.2: Positioning of countries by the extent of enrolment-driveness of funding



Nl*un*: Netherlands universities; NL*hs*: Netherlands hogescholen

In Germany and Denmark enrolment is no criterion in the funding formula. In Dutch universities the number of new entrants determines around 13% of total funding. In Flemish universities and in Sweden, around half of the funding is enrolment driven. In Tennessee, this part is around two third. In Flemish hogescholen around 80% of public funding is enrolment driven, whereas in the remaining countries, funding is completely enrolment driven. In the case of the Dutch hogescholen we have to note that the number of students enrolled is weighted by the time to

complete (an output criterion). In the case of the United Kingdom it is not possible to determine the extent of enrolment-driveness. In principle the funding is historically determined (the budget of the previous year). To determine whether that amount is still adequate, a standard-budget is calculated, which is fully enrolment-driven. Since we don'' know to what extent the standard budgets deviate from the historically determined budgets and since a 5% bandwidth is used (within which no compensation for fluctuation in enrolment is made) it is not possible to position the United Kingdom on the scale of figure 1.2. Given the bandwidth and the changes in enrolment we expect the UK-position close to the position of Dutch universities.

In all countries, the criteria for allocation (be it input or output) are weighted. The weights vary according to disciplinary group, level of programme, or type of institution, leading to a number of different tariffs used. In table 1.1 the number of tariffs used are presented.

Table 1.1: Number of tariffs used in the funding of teaching activities (initial programmes)

Australia	5
Denmark	12
Germany	n.a.
France	31
the Netherlands	7
New Zealand	12
Tennessee	10
United Kingdom	4
Flanders	3
Sweden	12

As mentioned before, teaching activities and some fundamental research activities are linked in the funding formulas of some countries. This link is based on the Humboldtian idea that teaching and research are two types of activities in higher education that are intertwined and cannot be separated. In Australia, Germany, France, New Zealand and Flanders the funding formula comprises both teaching and research-elements. In Tennessee there is an element named research but it is only a small part of the whole formula. In the other countries, there are no clear research elements in the funding mechanism of teaching activities.

In seven countries, the funding formula is a distributive instrument: the outcomes of the funding formula are used to determine what part of the total public funds available is allocated to what institution. The total amount of public funds is determined in other (political) arenas. In Denmark and New Zealand public funding is open-ended. The results of the funding formula determine the amount available to teaching activities. However, in case the growth of the budget is expected to be too large, the tariffs will be adjusted. In Germany, no formula is used.

1.2.2 Demand- and supplyside funding

The distinction between demandside versus supplyside funding is a second dimension that can be used to describe funding mechanisms. There is a wide variety of definitions of both concepts. This has lead to confusion in the discussions on the pro's and con's of demandside and supply side funding. In this report we use a straightforward definition as a starting point for the characterisation of fundingmechanisms in the ten countries. In addition two alternative frequently used definitions of demandside funding are presented.

The criterion whether a funding mechanism can be characterised as demandside or supplyside refers to the question who receives the resources from the public authorities to fund teaching activities. In the case of supplyside funding, the higher education institutions get the money directly from the public authorities. In the case of demandside funding, the funds are provided to the demanding party, which are the students: they get the money (or vouchers) from the public authorities and they buy the teaching activities they want.

The discussions on demand-driven funding in higher education can be put into the perspective of discussions regarding the introduction and expansion of market type mechanisms in the public sector. One of the starting points in these discussions is the assumption that by providing the client (the student) a limited amount of public resources, (s)he will be aware of the scarcity of the public funds (s)he receives and that (s)he will behave as a critical consumer, using the resources in a more efficient way.[15]

This type of demandside funding was not found in the ten higher education systems examined. There are or were discussions on the introduction of vouchers in Australia and New Zealand but a full system has not been implemented. The drastic nature of the proposals and the uncertainty regarding the effects of the introduction for institutions and the higher education budget have led to an abolishment of the plans. In the Netherlands, a small-scaled experiment regarding vouchers

[15] For a more detailed analysis of funding by vouchers see Jongbloed and Koelman (2000)

started in 2001, but given the outset of the experiment it may be doubted whether the vouchers are real vouchers[16]. A full-scale introduction however is not yet envisaged.

1.2.2.1 Student support systems as demandside funding

In literature, public student support systems are often characterised as a type of demandside funding. It is argued that public student support is a flow of public resources that end up at the suppliers of educational services through the students. The resources concerned are public grants part of which students may use to pay tuition fees.

Using this line of reasoning, we may determine the extent of this type of demandside funding in the ten countries by comparing the level of public grants and the level of tuition fees[17]. In the table below, the average grants[18] are presented. Next to that the level of tuition fees at public higher education institutions are presented. In the final column we give an assessment of the extent of demandside funding by student support. The basic criterion for this was the extent to which tuition fees may be covered by public grants.

Student loan schemes are not considered to be public funds. Although public authorities provide the funds for these schemes, the students have to repay those funds. The results therefore refer to public grants and scholarships only.[19]

In general in countries without tuition fees we cannot speak of indirect demand driven funding. This is the case in Denmark, Germany and Sweden. In countries with low tuition fees, like Belgium (Flanders) and France, we can only indicate a low level of indirect demand driven funding. The only country where tuition fees are at a considerable level and students on average

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[16] After a long period of discussion (almost 15 years) the first voucher experiment in the Netherlands started at January the 1st 2001. The experiment is a co-operative effort of 10 institutions for higher professional education (HBO's) and 6 medium and small-scale business organisations (MKB). Concerning the education program, students can take courses from the 10 participating HBO's, increasing the competition among these institutions. The branche-organisations hope to strengthen their relationship with HE, to combat the problems of a tight labour market and to use the knowledge of students for innovations. As such they offer serious practical periods (jobs) for students wishing to follow a dual learning and working structure.

[17] The information on tuition fees is neede because grants may be used also to cover costs of living, which are not relevant in this report.

[18] In calculating the average grant, we take into account the average amount of the grants and the percentage of regular (full-time) students receiving grants.

[19] For reasons of convenience we do not take into account the indirect subsidies attached to loans by means of interest subsidies and debt forgiveness.

could pay these tuition fees from the public grant subsidies they receive is the Netherlands. In the remaining countries (Australia, New Zealand, Tennessee and the UK), with even more substantial levels of tuition fees, the average grants given to students fall far below the level given to Dutch students. This implies only a moderate or low level of indirect demand driven funding in these countries.

Table 1.2: Annual average grant per student, average tuition fees (1999-2001, in €) and extent of demandside funding through student support

Country	Student grants	Tuition fees	Extent of demandside funding through student support
Australia	650	1850-3250	Low
Denmark	3750	0	No
Flanders	342	100-600	Low
France	494	200-850	Low
Germany	374	0	No
Netherlands	1750	1300	Considerable
New Zealand	725	1200-2600	Moderate
Sweden	2150	0	No
Tennessee	1100	1600-3800	Moderate
United	700	1700	Low

Source: CHEPS calculations, 2001.

In general in countries without tuition fees we cannot speak of indirect demand driven funding. This is the case in Denmark, Germany and Sweden. In countries with low tuition fees, like Belgium (Flanders) and France, we can only indicate a low level of indirect demand driven funding. The only country where tuition fees are at a considerable level and students on average could pay these tuition fees from the public grant subsidies they receive is the Netherlands. In the remaining countries (Australia, New Zealand, Tennessee and the UK), with even more substantial levels of tuition fees, the average grants given to students fall far below the level given to Dutch students. This implies only a moderate or low level of indirect demand driven funding in these countries.

All in all we can conclude that indirect demand driven funding through tuition fees and student grants is the highest in the Netherlands compared to the other countries involved in the study. However, even if we take the Dutch position, we must say that tuition levels on average only cover about 20 per cent of public expenses on higher education teaching programs.

Figure 1.3: Positioning of fundingmechanisms by the extent of demandside funding through student support

1.2.2.2 Enrolment-driven supplyside funding as demandside funding

A second alternative definition of demandside funding is based on the adagium 'the money follows the student'. According to this line of reasoning, there is demandside funding if students enrolled are the (major) component that drives the funding formula. Students may influence the budgets of higher education institutions by their choice of programme (voting with their feet). Using the results as presented in figure 1.2, a completely different picture regarding the extent of demandside funding emerges. In four countries funding is completely on the demandside, whereas in only two countries demandside funding does not exist.

However, we have to make a critical remark on this 'surprising result'. Demandside funding is primarily focused on stimulating individual choice by empowering students. enrolment-driven supplyside funding could be seen as demandside funding if the conditions for success of a higher education market would be met. The main conditions are free access of suppliers and customers to the market, transparency of the market and the existence of a price-mechanism (possibility for differentiation in price and quality) (see Bartlett and Le Grand). In virtually all countries described here, these conditions are not met by far. Therefore, we do not consider enrolment-driven supplyside funding as a type of demandside funding.

1.2.3 Contributions by regional and local authorities

Regional and local contributions to initial (undergraduate) teaching activities are not very common in the countries examined. In France, regions and local communities provide around

5% of total institutional revenues (see chapter on France). In the other countries, this percentage is even less or absent.

The regional and local level is considered to be supplementary regarding funding of initial higher education teaching activities. In two of the three federal systems examined (the USA and Germany) the state level has the main responsibilities regarding funding of those activities. State contributions in federal systems are therefore not considered to be regional contributions. In Australia the Commonwealth (federal level) has the primary responsibility for funding higher education.

1.2.4 Transitional effects

Funding mechanisms have a substantial effect on the public resources a higher education institution receives. Changes in the funding mechanism therefore will affect the amount of public resources available to individual higher education institutions: some will gain, some will lose. The latter is seen as an undesirable side effect of a change in funding mechanism. The continuity of those higher education institutions may be jeopardised. Because of this, most changes in funding mechanisms address also these transitional effects.

In four countries, the funding mechanism was changed 'recently'. In Sweden the funding mechanism was changed in 1993. The loss of funds according to the new formula was completely compensated by the government. This lead to an increase in public expenditure on higher education. In Denmark the taximeter-model was implemented in 1994. The change should be without budgetary consequences in the first year and redistributive effects between higher education institutions in the first year should be avoided. These two conditions had a strong influence on the calculation of the taximeter-tariffs, which were therefore predominantly historically determined. The 'pain' for some institutions was resolved by adjusting the tariffs. The Dutch university fundingmodel was changed recently. In the reconstruction of the British fundingmechanism, the reallocation effects were limited. The use of a historically determined budget as a starting point and the use of a bandwidth to dampen the fluctuations in funding due to fluctuations in enrolment lead to a smooth transition.

1.2.5 Double degrees

Normally students enrol for one programme and leave higher education after receiving a first degree. However, there is a small category of students that enrol in two or more programmes or enrol in a second undergraduate programme after graduation.[20] The question raised in this respect was: How are these students or their performances counted for in the funding formula? In general, in those countries where output criteria are used in the funding formula, the performances of those students are counted (Denmark, the Netherlands, Sweden, France, and Tennessee). However, in countries were students enrolled (or new entrants) are used as criterion in the funding formula, the situation differs. Those students that are enrolled in a second undergraduate programme after completion are counted in most countries (except Germany). Students that are enrolled in two programmes at different institutions simultaneously are also counted in most countries (except Germany and Flanders). Students that follow two undergraduate programmes at the same institution are counted only in two countries twice: New Zealand and the United Kingdom. In Sweden and Tennessee the situation is not clear. In the remaining five countries those students are not counted (in Denmark funding is entirely output-based).

1.2.6 Internal allocation within higher education institutions

In all countries except Germany, public funds for teaching activities are provided to higher education institutions as a lump sum. Higher education institutions are therefore, within very broad and general limits, free to spend the public funds as they like[21].
Institutions do not distribute public funds at random; they use some kind of an allocation-model too. However, there are no national regulations or rules regarding those internal allocation models. In order to get a full description of the internal allocation models used, a large-scale analysis of institutional documents and policies would be needed. Due to the time and resources this would take and the research question formulated in the first paragraph, such an analysis is beyond the scope of this project.

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[20] These remarks and observations do not refer to graduates who enrol in a (post)graduate programme, since the study focuses on the funding of initial higher education teaching activities.
[21] In Germany experiments are going on regarding the introduction of lumps sums. The lump sum for the French higher education institutions is relatively small. Most part of expenditure (staff) is administered by the central government.

It is expected that there will be differences in internal allocation models used in higher education institutions in one country, but the internal models will probably not deviate too much from the national model. The Dutch situation in 1995 was in line with this expectation (Koelman (1995) and Jongbloed (1995).)[22]
Although it might be expected that the degree of professionalism of the management of higher education institutions is related to the development of different internal allocation models, there is no empirical evidence for this relation

1.3 Recent discussions and trends

The second main research issue is the recent trends and discussions regarding funding of higher education. The main issues are described below.

The first issue is the choice of criteria on which the allocation of public funds is based. In the Netherlands and Flanders the intention is to increase the weight of output criteria. In the funding mechanism of the Dutch hogescholen, the output-character will be increased by using study-credits and degrees awarded as criteria. In Flanders the government has frozen the existing situation (input-oriented) while considering a new funding mechanism, based on much more output criteria. In Denmark and Sweden (both funding mechanisms with a strong output-orientation) there is a debate to replace part of the study-credit criterion by degrees awarded. This change is considered to create an incentive for institutions to stimulate their students to get a degree.

In a number of countries, the funding mechanisms have evolved into very complicated systems. The large numbers of criteria and tariffs have made the funding mechanisms non-transparent. Funding mechanisms and formula and especially out-criteria in those formulas are created to stimulate efficient and effective behaviour of higher education institutions. In order achieve that, funding mechanisms should convey a clear message to the higher education institutions: funding consequences of changes in institutional behaviour should be clear. However, the non-transparency of the funding mechanism hampers that function of funding mechanisms. In Denmark, New Zealand and Sweden, initiatives are developed to reduce the number of tariffs. In the United Kingdom, a reduction already has taken place.

[22] This expectation was shared by a number of contact in Sweden and the UK.

A phenomenon that is becoming popular is the use of contracts as a (supplementary) way of funding initial higher education teaching activities. Such contracts are used in Germany, France, Sweden, Australia and New Zealand. The character of contracts in these countries differs. In Germany contracts are used in city-states like Bremen. Instead of developing an extensive funding formula, government drafted a contract for the university and professional colleges. The reason for this was rather down to earth: its is easier to draft a contract for a very limited number of institutions than develop a general funding formula that would satisfy all needs of institutions and government. The contracts in Australia and New Zealand have a rather limited scope. They comprise an agreement on the number of students funded. The French contracts are agreements between a higher education institution and public authorities. In these contracts the higher education institution promises to perform agreed upon activities in return for which the public authorities provide funds. These activities may comprise programme offering, programme reform, relation between local and regional communities and the higher education institutions etc.

The introduction of demand-driven funding is discussed in a few countries. In Australia and New Zealand there were plans but those plans were not submitted or implemented, due to the high level of resistance of the higher education field to the far-reaching proposals. In the Netherlands the issue of vouchers has been on the agenda again. In the higher education policy document (HOOP2000) experiments with vouchers in the hogescholen were announced but these experiments have not been realised. In the plans for the new funding mechanism there are no more voucher elements included. There is however a small-scaled experiment with voucher type funding in co-operation with the SME-sector.

Germany proved to be the only country in which public funds are not yet based on a funding formula and provided as a lump sum. In a number of states however, large-scaled experiments on *Globalhaushalt* and formula funding are running.

We conclude this list of recent issues with the observation that student financial aid schemes in France and Germany will improve the next years. More students will become eligible and the individual amounts of grants will increase.

Steering innovations by funding

In most countries public funds for initial higher education teaching activities are provided as lump sum. Because of this, the (public) providers of these funds cannot use funding as an instrument to steer innovations (by the higher education institutions) directly. Public funding through contracts (especially the French and to a lesser extent the German model) gives the public authorities the possibility to steer (a marginal) part of the teaching activities.

The development and implementation of specific innovations may be steered directly through the use of earmarked budgets. In most countries such earmarked budgets are used. A small part of the teaching budget is used to realise specific (new) objectives.
The downsides of this direct steering are the high policy- and implementation costs and the tension between direct steering and institutional autonomy.

1.4 Funding and quality

The third main research issue is a reflection on the impact of the funding mechanism on the quality of teaching. What assumptions are used regarding that (presumed) impact?

Quality is a multidimensional concept for which no undisputed definition can be given. Each of the many stakeholders in higher education have their own goals regarding teaching activities. The extent to which these goals are achieved may be seen as the level of quality of higher education teaching activities.

In our reflections on the relation between public funding and the quality of teaching we limit ourselves to one type of stakeholder and its goals, i.e. the public authority providing the funds. It is their perception of quality that will lead to possible changes in the funding mechanisms.

In all countries there is a basic relation between funding and quality: teaching activities have to meet certain quality standards in order to be publicly funded. Programmes have to be approved, recognised, accredited or otherwise show a minimum level of quality. However, most changes in funding mechanisms are not quality-driven. The main goal of most changes is to increase the allocative efficiency of the system. Whether changes might have an effect on the quality of teaching activities is a second rank issue.

In a number of countries output-criteria were introduced in the funding mechanisms, primarily to stimulate the efficiency of teaching activities. In Denmark, where funding is completely output-based, it was feared that the new model would lead to a loss of quality: if institutions are rewarded for more studycredits they might be tempted to produce more credits by lowering the standards. This fear proved to be unsubstantiated (see Canton and Van der Meer, 2001).

In Tennessee a small part of public funding can be earned through a high score on performance indicators for teaching. These indicators comprise not only educational standards but also the judgement of other stakeholders like students, alumni and employers. There are some doubts regarding the effects of this performance based funding on the quality of teaching activities. The scheme has created its own bureaucracy and faculty has no (direct) involvement in the measurement.

In France, the government stresses the importance of the relation between higher education institutions and their regional and local environment. This is seen as an important aspect of the quality of higher education. The use of contracts, in which this relation is an important parameter, therefore will improve the quality of the teaching activities.

Another indicator of the relation between funding and quality can be found in the use evaluations as inputs in funding decisions. However, although poor results in most quality assurance systems may officially lead to withdrawal of public funds, in practice this ‘never’ happens (see Vossensteyn *et al*, 1998)

Except for the examples described above, the direct relation between funding and quality is very thin. In some cases it is said that a change of funding mechanism will improve the quality of teaching, but how this could be accomplished (other than by increasing the total amounts of funds) is never specified.

1.5 In conclusion

Discussions on changes in the fundingmechanism very often cause commotion in the higher education field. This is hardly surprising since such changes may lead to a reallocation of public resources. Although there has been a lot of discussion on changes in the fundingmechanisms of the ten countries described, the number of actual and substantial changes is limited. Enhancing the role of output-criteria in fundingformula has been discussed in a number of countries, but only in Flanders and the Netherlands plans have come into action. There also has been some debate on demandside funding, but this has not lead to the introduction of a 'real' demandside funding system like a voucher system.

These 'poor' results in terms of changes realised may partly be due to the limited scope of the study (no post-initial teaching and no research) as well as to the growing importance of other sources of income for the higher education institutions. The latter comprises public resources allocated through specific arrangements and resources generated by contractual activities. Because of the strong relative growth of these sources of income the past ten years, the relative weight of basic public funding (as is determined by the funding formula) has diminished.

Despite these relativisations, the descriptions and classifications of public funding mechanisms presented in this report are very relevant and important in order to be able to answer the 'bigger' question on the effects and the effectiveness of different fundingmechanisms. Changes in fundingmechanisms are made not for its own sake but to reach a better goal-attainment. How a change in the fundingmechanism may influence the behaviour of higher education institutions and other providers of higher education activities as well as the behaviour of the studentbody in such a way that the goals are attained is a question still to answer. This report may be seen as a first step in that process.

2 Introduction

2.1 The policy context

Public expenditure on higher education is a significant part of total public expenditure. This is justified by the crucial role higher education plays in the development of national economies and societies into knowledge-based economies and societies. Modern societies need to invest in teaching and research to keep up with the growing competition in the rapidly evolving global economy. In these debates, the role of public funding is reiterated once again.
In the 1980s the debate regarding funding was in the context of financial stringency and therefore focussed on efficiency. In the 1990s, the neo-liberalism (and neo-socialism) took hold in a number of Western European countries, leading to more attention for market type mechanisms. In this context, the role of public funding of higher education is discussed.

In this study the primary focus is on the funding mechanisms for higher education: How are public resources allocated among higher education institutions in order to achieve both governmental as well as institutional goals. Questions and debates regarding the level of public funding of higher education are beyond the scope of this report.

The funding of higher education is a recurrent topic in Dutch higher education policy debates. Recently, vouchers, demand-side funding, and performance based funding have been discussed. In addition, the developments regarding the introduction of a bachelor-master structure in Dutch higher education has put the role of the government in funding higher education on the agenda once more. As an important input in these discussions, the Dutch Ministry of Education, Culture and Science wants to have a clear picture of the funding mechanisms and their use in a number of other higher education systems. Different models, criteria and possible insights in the effects of different mechanisms may enrich the Dutch debate and improve the outcomes of it.

At the end of 2000, the Dutch Ministry of Education, Culture and Science commissioned a comparative study regarding the funding mechanisms in ten higher education systems to the

Center for Higher Education Policy Studies. The study is a thematic report within the framework of the CHEPS Higher Education Monitor[23].

2.2 The research questions

The funding of higher education is a very broad field. Covering all aspects of the field from a comparative perspective would be beyond the scope of the project. Based on the initial central question – How is higher education funded in a number of countries? – a number of limitations were decided upon. First, funding of research activities within higher education institutions is excluded. However, in a number of higher education systems, teaching and fundamental research activities are closely linked to each other, which also is reflected in the funding mechanism. In those cases the funding of teaching related research activities will be described, be it in less detail. Second, funding of post-initial or post-graduate courses is also excluded. The focus is on those programmes that lead to a first degree (in Anglo Saxon systems this would be a bachelor degree). These programmes are traditionally geared towards the young student who, following his or her secondary education seeks a first degree. The variety is in ways post-graduate programmes are funded and the lack of reliable information on this are the min reasons for this limitation. A similar reasoning is used to exclude private fundingmechanisms.

The central research question to be answered in this report is: 'How do governments allocate public funds to (publicly funded) initial teaching activities in higher education in a number of countries?'

[23] The 'CHEPS higher education monitor' is an ongoing research project aimed at the monitoring of higher education systems and higher education policies in (Western) European countries. A major part of the project is commissioned by the Dutch Ministry of Education, Science and Culture. The 'CHEPS higher education monitor' consists of in-depth country reports, (describing national systems and policies), thematic reports (providing in-depth comparative analyses of major issues in higher education research), and a database with quantitative and qualitative information on the higher education systems.

From this central question and the policy context described in the previous section, we derived the following three research issues:

I. A detailed description of the national funding mechanisms
II. A description of the national discussions and recent trends regarding funding of higher education. In these descriptions, specific attention will be paid to the role funding mechanisms play in educational innovations.
III. A reflection on the impact of the funding mechanism on the quality of teaching. What assumptions are used regarding that (presumed) impact?

The detailed description of the national funding mechanisms will be the main part of the report. The description consists of the following elements:

1. input- and output-orientation of funding
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5. transition problems in case the funding mechanism was changed recently
6. students simultaneously enrolled in two programmes
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The information on the three main issues will be presented below.

2.3 Countries selected

The information available in the CHEPS Higher Education Monitor is the starting point for the data collection. In the CHEPS Higher Education Monitor, there are nine 'core' higher education systems (Austria, Denmark, Finland, Flanders, France, Germany, the Netherlands, Sweden and the United Kingdom). In order to increase the variety and richness of the comparison, it was decided (by the ministry and the researchers) to replace Austria and Finland with Australia, New Zealand and Tennessee (USA).

2.4 Methods used

The CHEPS Higher Education Monitor contains a wide variety of (policy)documents that were scanned and analysed (when relevant). In addition, the network of internal and external experts CHEPS has built in the various countries over the years has been used. Other sources like internetpages, as well as research literature have been analysed to collect the information needed.

2.5 Structure of the report

In the previous chapter an overview of the results of the project is presented from a comparative perspective. Following the list of research issues and their elements, an answer to the central research question is sketched. The following chapters consist of detailed case descriptions of the national funding mechanisms.

3 Australia

3.1 Introduction

In 1988, the binary higher education system was replaced by the *Unified National System* of higher education in Australia. From then onwards, all higher education institutions, including the *Colleges of Advanced Education* have a university status. Concurrently, a large merger operation leading to serious increases of scale diminished the number universities from 78 in 1988 to 42 at present. Of these 42 institutions, 38 receive Commonwealth funding under the *Higher Education Funding Act 1988* on a triennial basis. Two other institutions receive Commonwealth funding on a contract basis. In addition to these institutions, there are two private universities as well as a range of privately funded institutions (such as theological colleges) offering higher education courses.

The Australian system of higher education has a strong British (or, better, Scottish) education orientation. The following degrees can be conferred: a *bachelor degree* with a duration of generally three years of full-time study; the opportunity to get a *honours degree* after one additional year of study; a master degree (often after two years of study following a bachelor degree) either in the form of a taught/coursework master or a research master or a mix of both; and a PhD including a research program of at least three years of fulltime study. In addition, students can get a number of sub-degrees, like certificates, diplomas and advanced diplomas.

The number of students rapidly increased over the past decade, from 534.500 in 1991 to 695.500 in 2000 (DETYA, 2001). Over 75% of the students (about 527.000) enrolled in a bachelor program in 2000, about 142.000 students studied at postgraduate level (master, PhD). The strong increase in student numbers put a lot of strain on education funding. Policies were more and more directed at efficiency and improving effectiveness (*value for money*), which for instance led to the introduction of quality measures, quality improvement and the introduction of performance indicators.

Admission to universities for school leavers is normally on the completion of full secondary education (Year 12). However, demand exceeds the number of places available. As a selection criterion, entry is normally determined by the students' 'tertiary entrance scores' (based on their results in State based Senior Secondary Certificates of Education). The selection is co-ordinated at the state level.

3.2 Institutional finance

3.2.1 Introduction

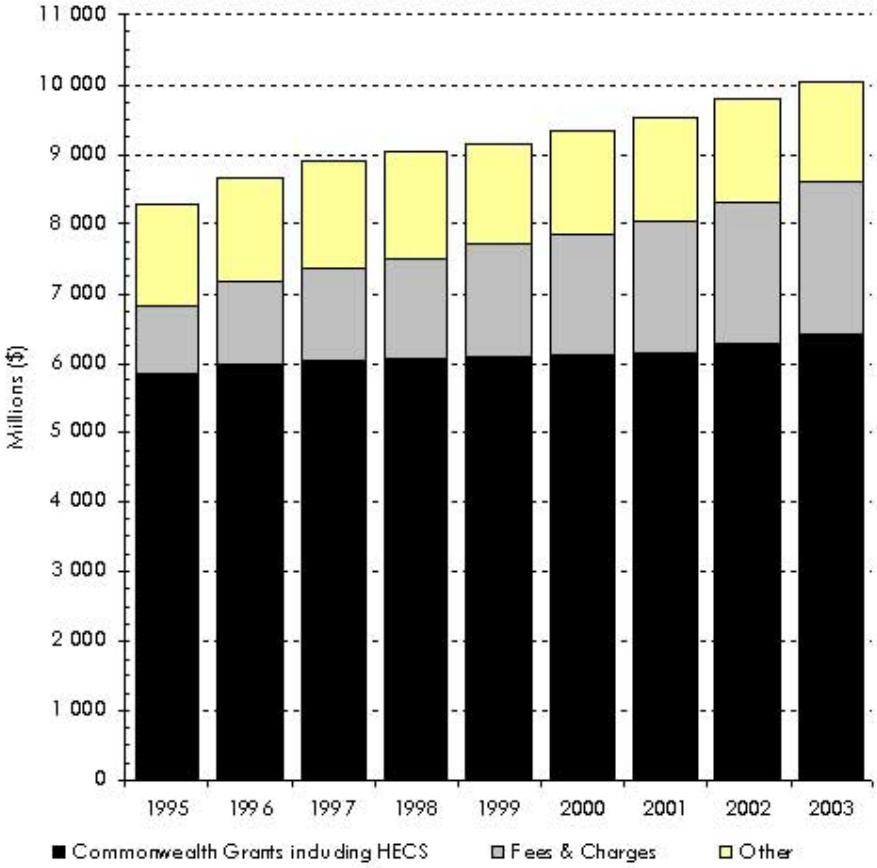
Since 1974, the federal government (Commonwealth) is responsible for the (public) funding of higher education. Prior to 1974, higher education institutions were funded by the separate states. The current way of funding is laid down in the 1988 *Higher Education Funding Act.*

Total revenue for the higher education sector is projected to grow to A$9.8 billion by 2003 (DETYA, 2000). This represents a total increase of A$1.5 billion or 19 per cent since 1995.[24] University income from sources other than government grants and student fees, will have risen over the period 1995-2003 by A$1.2 billion or 53 per cent. University dependency on Commonwealth payments will have reduced from 71 per cent in 1995 to 63 per cent in 2003. Increasing self-reliance enables universities to pursue diverse missions and meet varying community needs. Figure 3.1 shows recent trends.

The total operating revenue (before abnormal items) of the 40 publicly funded university entities was A$8.5 billion in 1998. Of that amount, just over half (50.8%) was from Commonwealth Government grants and 17.2% was from tuition fees through HECS. Details are provided in table 3.1.

[24] 1 A$=NGL 1.30= € 0.593 (May 2001).

Figure 3.1: Total higher education revenue 1995-1999 (actual) and 2000-2003 (estimated)



Source: DETYA (2001).

Table 3.1: University operating revenue in 1998, by source

Source	Millions A$	%
Commonwealth Government Grants	4,295	50.8
HECS	1,451	17.2
Fees and charges	1,371	16.2
Investment income	290	3.4
Donations and bequests	115	1.4
State Government	90	1.1
Other sources	845	10.0
Total	8,456	100

Source: DETYA (1999a).

3.2.2 Funding of teaching and research

The *Higher Education Funding Act (1988)* (HEFA) allows grants to be made to higher education institutions for operating, capital and research purposes. In addition, grants are made for particular programs such as the *Higher Education Innovation Programme*, *the Teaching Hospital Grants* and the *Higher Education Equity Programme*. The distribution of grants to institutions is announced by the Minister for Education, Training and Youth Affairs in the triennium funding report, (this year's *Higher Education Report for the 2001-2003 Triennium*) that is normally released in December each year.

Commonwealth funds are allocated to the higher education sector through a framework of key elements (DETYA, 2001):

- the allocation of resources in the context of a rolling triennium;
- accountability through the submission of educational profiles;
- the provision of operating resources in the form of a single block operating grant;
- the Higher Education Contribution Scheme (HECS); and
- the competitive allocation of research funding to encourage selectivity and concentration.

As such, the basic fund for higher education (the Commonwealth operating grants) include components for teaching and research. However, a strict distinction between the teaching related component and research related component cannot be made. The research related component can be further distinguished into a *research* and *research training component* as well as the so-called *Research Quantum* (RQ).

Funding of teaching

The operating grants are primarily distributed according to a normative allocation model, the *Relative Funding Model*. This model was introduced in 1991 to establish an equal distribution of funds among the higher education institutions. In the following years, the funding of institutions is based on negotiations between the individual institutions and the ministry. The number of publicly funded student places takes a central position in the negotiations. As a basis for the bilateral negotiations, institutions annually have to draft the *Educational Profile*.

During annual educational profiles discussions between the Ministry and higher education institutions, an assessment of higher education institutions for the purpose of allocating Commonwealth funding is undertaken. Operating grants are determined on the basis of total number of Commonwealth-funded student places that an institution is expected to fill in a given year, taking into account mix of disciplines and levels of an institution's provision. Institutions are expected to meet a minimum undergraduate student load. In addition, the targets in the Educational Profiles include a residual load (related to postgraduate training), targets for new entrants and a *swap*, concerning a potential change in the composition of the student body. Educational profiles comprise:

- a statistical return covering teaching activities and student load;
- a quality improvement plan;
- an equity plan;
- an Aboriginal and Torres Strait Islander education strategy; and
- a capital management plan.

The information provided allows a review of an institution's performance in achieving previously agreed objectives and forms a basis for assessing the resources needed by the institution. Funding provided to institutions is based on this process and allocations are published in an annual funding report. This report is an important element in the public accountability of the higher education programme.

In general, student places are funded according to normative standard amounts. However, slight deviations of the standards are possible in relation to negotiations on the wished diversity in the courses offered. Table 3.2 provides insight into the normative standard teaching weights used in the funding model. These weights, that *de facto* are used as tariffs, differ for five clusters of disciplines/courses.

Table 3.2: *Teaching weights in the Relative Funding Model*

Cluster	Weights by cluster and level		
	Undergraduate	other postgraduate	Higher degree research
1	1.0	1.4	2.0
2	1.3		
3	1.6	1.8	
4	2.2	3.0	4.7
5	2.7		

Source: Che Ng *et al.* (1994)

As shown in table 3.2, the relative funding model makes use of 10 different funding weights varying between 1.0 and 4.7. The weights reflect the differences in the costs of programmes in various disciplines. At undergraduate level, 5 tariffs are used, whereas at postgraduate level, three different tariffs are used on the level of *other post graduates* and two on the level of *higher degree research students*. The specification of the clusters by discipline is shown in table 3.3.

Table 3.3: Clustering of disciplines in the *Relative Funding Model*

Cluster	Undergraduate	other postgraduate	higher degree research
1	Accounting Admin./economics Law Other humanities	Accounting admin./economics law other humanities education mathematics, statistics other social studies	Accounting admin./economics law other humanities education mathematics, statistics other social studies computing nursing other built environm. other health other languages visual/perform. Arts
2	Behavioral science Education Mathematics, statistics Other social studies		
3	Computing Nursing Other built environm. Other health Other languages Visual/perform. Arts	Computing Nursing other built environm. other health other languages visual/perform. Arts	
4	Engineering Science Surveying	Agriculture Behavioural science dentistry engineering medicine science surveying veterinary science	Agriculture behavioural science dentistry engineering medicine science surveying veterinary science
5	Agriculture Dentistry Medicine Veterinary science		

Source: Che Ng *et al.* (1994)

Based on the clusters and the different funding weights the amount or price per student can be calculated. As such, the price per student in cluster 1 (P_1) can be calculated as follows (given a predetermined macro-budget B):

$$P_1 = B/S \times G_1$$

where:

S = the number of weighted students

G_1 = the weight for students in cluster 1

In the *Relative Funding Model* universities are funded in advance for the number of planned students, counted in *EFTSU (equivalent full-time student units*). If it turns out that the number of student units taught is considerably lower (at least 2%) than the number of funded student places, this may have financial consequences by way of a reduction of funds allocated in the next academic year. The number of agreed student places is the upper limit of the number funded by the ministry. A higher number of students recruited compared to the number agreed did not lead to additional funds until 1998. Since then, to encourage institutions to recruit additional numbers at low cost to the Commonwealth Government, the universities are paid the equivalent of the minimum up-front HECS payment (reflecting about 40% of average tuition costs) for each HECS-only student enrolled above the target level. The one exception to all this will be medical students where the Government wishes to restrict numbers.

Finally, the total budget for higher education is a predetermined macro-budget. The funding capacity is limited and certainly not open-ended. The funds, including funds for investments and research are provided as a lump sum (block grant) for the whole set of university activities. Performance indicators are only used for the research component of the budget. The teaching related part is fully input-based. All in all, we can conclude that the Australian system is a form of capacity funding.

Tuition fees

As part of the general funding strategy applied to higher education, students have to contribute to the costs of education through centrally determined tuition fees since 1989. In 1997, the uniform tuition tariff was replaced by a differentiated system including 3 tariff bands. The average level of fees was also considerably increased, to about 40% of average tuition costs. (further details can be found in section 3.3.2).

Since 1998 universities are free to offer fee-paying places to Australian undergraduates above their authorised number of Commonwealth-funded places (*target load*) subject to three conditions:

- their authorised 'target' numbers are all filled;
- the number of fee paying undergraduate students does not exceed 25 per cent of the total enrolment of Australian undergraduates in any course;
- the fee charged is not less than the relevant HECS charge.

Recent developments

Based on the Review of Higher Education Financing and Policy of the a Committee chaired by R. West (Commonwealth of Australia, 1998), the Minister of Education (Kemp) proposed a number of changes in the funding of Australian higher education in 1999. These included proposals to decentralise tuition fee policies and to make the funding of teaching fully demand driven (resulting in a system of voucher-funding. However, the Minister met serious resistance from al stakeholders involved and as a result the Australian government reaffirmed the current structure of higher education funding in October 1999, indicating that the following features will remain:

- Fees will not be deregulated.
- Vouchers will not be introduced.
- The Higher Education Contribution Scheme will not be charged for Technical and Further Education.
- There will be no additional loan system, or real interest rate attached to the current HECS system.
- The current system of government subsidies and funded places will remain, as will the prohibition on charging fees for HECS-liable places.

The Australian government also decided to apply, from 2001, new quality assurance processes in relation to all institutions seeking financial support from the Commonwealth government. These will be developed in co-operation with the States and Territories and in consultation with the sector (DETYA, 2000).

Double degrees

On the basis of their yearly "Profile negotiations" with DETYA, each university is funded for a specific number of students across different disciplines. It is really up to the university to decide whether it allows students to take double degree programs, but every student is only counted once. The university gets funded on the basis of the agreed student enrolments, not on the number of degrees they take. The problem is that students taking double degrees usually will need more years to finish their degrees and therefore take up places that could have been awarded to other students, so universities will put some pressure on students to finish their degrees in time. DETYA funds the university on the basis of a 'flow model' applied to the number of first year enrolments (1st year load, plus ca. 75% of that for second year, et cetera), so it uses notional retention rates. So, a large number of students doing double degrees will produce deviations from the notional retention rates. DETYA does not compensate the universities for this pipeline effect (i.e. students taking more time to finish). Altogether, students doing two degrees do not have to pay twice the HECS rate. Usually they pay the highest of both rates.

Basic funding for research

The Operating Grants for universities also include funds for research, also allocated according the *Relative Funding Model*. This is partly performance oriented. The *Commonwealth Government Grant* includes a *research and research training component* and the smaller so-called *Research Quantum* (RQ). In 1998 these together formed an amount of 1200 million A$. The relation between both components is about 4½ : 1. The RQ, which exists since 1995 is the part that is based on university performance and as such connected to the university scores in the so-called *Composite Competitive Index*. This index provides a weighted overview of indicators on research efforts and results (output) per university. The indicators and their weight concern the following:

Input:

- *total research funding* (weight 80%)
    - national competitive research grants
    - other public sector research funding
    - industry and other research funding

Output:

- *publications* (weight 10%)
- • *postgraduate research completions* (weight 10%)
    - PhD
    - Masters by research

The year 2001 is the last in which the Research Quantum (RQ) will be allocated. From 2002 the RQ, along with Small Research Grants, will be rolled into the new Institutional Grants Scheme (IGS) which was announced in *Knowledge and Innovatio*n. The IGS will be allocated on the basis of a modified formula, based on research income (60 per cent, with income from all sources weighted equally), research student load (30 per cent, with high cost places weighted 2.35 times low cost places) and publications (10 per cent, with books given 5 times the value of chapters, journal articles and conference papers). From 2003, the IGS will take account of three further types of output: patents, refereed designs, and exhibited works. The weightings of the additional categories are provisionally 2, 1 and 1 respectively (DETYA, 2001).

Apart from the research funds allocated through the Operating Grants the Australian government provided additional research resources on a project basis, known as Targeted Research. A part of these fund are distributed by the *Australian Research Council* (ARC), actually forming the second flow of research funds determining almost 6% of total university revenues.

Recent developments

On the level of initial higher education programmes, there are no recent developments regarding funding, other than the ones described above.

On research and research training, the Government released its White Paper, *Knowledge and Innovation: A policy statement on research and research trainin*g, (1999) which announced a new policy and funding framework for research and research training. This policy aimed to stimulate world competitive excellent research, to increase technology transfer from universities and to improve the effectiveness and efficiency of research training. In January 2001, the Government announced a $2.9 billion A$ package of initiatives, *Backing Australia's Abilit*y, to support the national innovative power. Around half of these new funds will be directed to the objective of *Knowledge and Innovatio*n. As a result, funding for higher education research will be boosted by more than $1.3 billion over five years, additional university places will be created

in areas of skills shortage, and a new loans scheme will be established for students undertaking fee-paying postgraduate courses. The largest single initiative in *Backing Australia's Ability* is the doubling of funding for competitive research grants administered by the *Australian Research Council*, at a cost of $736.4 million over five years.

Regarding post-initial programmes, the Government announced the introduction of the Research Training Scheme (RTS) in 1999. The scheme has been introduced to address some persistent concerns identified by students, institutions and employers about the poor quality of some students' research training environment, mismatches between the research priorities of institutions and the interests of students, and high attrition and slow completion rates of students. The key features of the scheme are that:

- Commonwealth-funded postgraduate research places will be allocated to higher education institutions according to each institution's performance;
- places may be held at any higher education institution which provides the Minister with an acceptable Research and Research Training Management Plan each year and which is included on the Australian Qualifications Framework Registers of
  - Authorities empowered by Government to Accredit Post-Compulsory Education and Training Courses; and
  - Bodies with Authority to Issue Qualifications;
- as students complete or discontinue their studies, their places will become available for reallocation through a performance-based formula;
- the formula will be based on successful research student completions (50 per cent), research income (40 per cent), and research publications (10 per cent);
- the maximum duration of a RTS place will be 2 years full-time equivalent for a Masters student and 4 years full-time equivalent for a doctoral student;
- all new places provided under the RTS will be HECS-exempt; and
- current research students will complete their courses under existing arrangements.

3.3 Student support and tuition fees

Students in Australian higher education are expected to depend on their own or parents' resources, as far as their cost of living is concerned. However, for particular groups of students, student grants and loans are available. In addition, students have to pay tuition fees for all

university programmes since 1989. For the payment of regular undergraduate tuition fees, the government designed a payment scheme called the Higher Education Contribution Scheme (HECS). Both the system of student support and the HECS will be further discussed in the following sections.

3.3.1 Student support

Although students are regarded to depend on their own or parental resources, there are several arrangements to support students financially. Most of these arrangements are directed at particular groups of students (Centrelink, 2001).

The major support program concerns the so-called *Youth Allowance,* which is a system also covering social security arrangements for other groups of young Australians. Youth allowance can be received by full-time active students aged 16-24. Youth allowance is subject to a means test, including the student's or parental income and assets. The allowance rates depend on whether students are single, have kids, live at home or need to live away from home.

A second program concerns the *Austudy Payment*. The Austudy Payment provides financial help for students aged 25 years or more and studying full-time. All students aged 25 or over are regarded independent from their parents. As a result, to be eligible for Austrudy Payment only depends on the student's own income and assets.

The third student support program is directed at Indigenous students. The so-called *ABSTUDY Payment* helps pupils and students from minority backgrounds, such as Aboriginals and Torres Straight Islanders, with meeting the costs of study (full-time and part-time). The payments are also means tested.

Apart from the allowance schemes, tertiary students can also be eligible for the *Student Financial Supplement Scheme*, which gives students the option of borrowing money (called a Financial Supplement Loan) to increase a student's income during studies. Students eligible concern those receiving Youth Allowance, Austudy Payment or ABSTUDY Payment or those whose parental income and assets is below A$57.750. Those also receiving Youth Allowance,

Austudy Payment or ABSTUDY Payment can trade in (part of) their grants for the double amount of supplementary loans.

Table 3.4 provides an overview of the maximum amounts of the different support programs

Table 3.4: Maximum amounts per fortnight of the different support programs for 2001

Student status	Youth Allowance	Austudy Payment	Abstudy Payment	Annual Financial Supplement Loan
At home, 18 +	190		190 or 357*	2000
Away from home, 18 +	290	290	290 or 357*	2000
Single with children	380	380	380	2000
Trading in grants				7000

Source: Centrelink (2001)
*: students aged 21 years and over

3.3.2 Tuition fees

Based on the need to expand higher education and the limited public means available, the Higher Education Contribution Scheme (HECS) was introduced in 1989. By means of the HECS, tuition fees were (re)introduced. However, the government established a system aimed at raising the revenues of higher education institutions without erecting financial barriers to participation in higher education. Since then, Australian students generally have been required to contribute to the cost of higher education. A key feature of HECS is that payment arrangements are based on the individual's capacity to pay. HECS is a scheme, in which students have the choice of either paying their tuition fees 'up front' at the beginning of each semester and receiving a 25% discount, or repaying their HECS debt through an income-contingent liability scheme after graduation. The money collected through HECS is spent on higher education.

HECS applies to Australian or New Zealand students in Commonwealth funded higher education award courses which lead to degrees, diplomas, associate diplomas, graduate diplomas, graduate certificates, Masters qualifying courses, Masters courses or PhDs. As such, HECS applies to around 80% of all students enrolled in universities. Students exempted among others include TAFE (Technical and Further Education) students, students charged tuition fees by the

institution[25] and students in non-award courses. All foreign (overseas) students have to pay a full cost covering tuition rate.

The level of the HECS tuition fees is determined by the Minister of Education. The HECS rate was originally set to recover 20% of the costs of an average university programme, which was $A1.800 in 1989. The level of HECS has been indexed to the costs of living. Until 1997 tuition fees were equal for all fields of study. As of January 1997, tuition fees are differentiated into three tariff bands: low, middle, and high. By 1999, these tariffs have gone up to the levels of $A3.409, $A4.855 and $A5.682. The tariffs are based on both the costs and the presumed benefits from studying in a particular course (Chapman, 1997).

HECS payments can be made in either of two ways. The first alternative allows students to pay their HECS contribution 'up front' at the beginning of each semester. Then they get a 25% discount. Over the years, the number of students choosing the 'up front' payment option has increased, up to 29% in 1997. The second alternative, chosen by the majority of students (71% of HECS liable students), enables students deferring payment of HECS until after graduation and repay their debt on an income-contingent basis through the tax system. This implies that people repay at different rates, depending on annual income after graduation. Graduates with high earnings repay more rapidly through higher (monthly) instalments than graduates with lower earnings. The repayments only start when annual earnings exceed a certain threshold. Together with increases in the level of income, the rate of repayment is also increased, as is shown in table 3.5.

Table 3.5: Income thresholds and repayment rates for 1998-99

Income (A$)	Tariff (%)
< 21.334	0.0
21.334 – 22.498	3.0
22.499 – 24.244	3.5
24.245 – 28.123	4.0
28.124 – 33.942	4.5
33.943 – 35.726	5.0
35.727 – 38.402	5.5
> 38.403	6.0

Source: DEETYA (1999)

[25] In addition to the HECS, institutions have been allowed to charge whatever fees they choose for up to 25% of their students in non-Commonwealth funded student places since 1998

From January 1998, students can also choose to make a combination of both payment options. A final but very important characteristic of the HECS is that there is no interest charged on the debt. The total debt is only indexed annually by adjusting it in line with the cost of living on the basis of the Consumer Price Index.

The major outcomes of the HECS are that higher education still expanded rapidly after the introduction of tuition fees and that it did not harm access to higher education for students from disadvantaged backgrounds. The proportions of students from different socio-economic backgrounds did hardly change since the introduction of HECS. As a result, people from lower SES groups also benefited from the increase in student numbers, though not as a proportion of total student numbers but in the sense that growth created greater opportunities for all social classes. Moreover, the level of unmet demand for higher education places has fallen substantially since 1992. It is therefore unlikely that the low and stable share of low SES students is due to high competition from other social groups for the limited higher education places (Andrews, 1999).

4 Denmark

4.1 Introduction

In the past ten to fifteen years the government has made changes to the funding mechanism that were primarily aimed at exerting (indirect) influence on aspects of the higher education system (for example, influencing institutional organisation, the choice of courses offered by the institutions, etc.). Since the early 1980's the trend has been toward more decentralised forms of funding (lump-sum grants instead of earmarked funding), but this has been balanced with more state control in terms of setting priorities for different types of programming, and the implementation of a system of quality control. Furthermore, the current funding mechanism is based on the number of 'active' students and therefore the institutional funding is based on output.

The system of higher education is financed by the Danish State. In 1998 the Ministry of Education's total expenditure on higher education amounted to DKK 17 billion, including research and student support. The funds allocated for teaching according to the taximeter model increased from DKK 4.5 billion in 1995 to DKK 5.2 billion in 1999. In 1998, 150,000 students received a total of DKK 5 billion in grants. Only 46% of them took out study loans amounting to a total of approximately DKK 1.3 billion.[26] Individual institutions are able to secure extra income by offering special courses and by selling expertise. [27] Nearly all higher education institutes are public. There are, however, some private self-governing institutions which are recognised by the state (for example some engineering colleges, schools of occupational and physical therapy, business schools, etc.) All of these types of institutions receive almost all of their funding from the state, but have varying degrees of independence and autonomy.[28]

[26] 1 Dkr = NLG 0.29514 = € 0.134 (March 2001).
[27] The Ministry of Education, 1997.
[28] Eurydice, 1992.

4.2 Institutional finance

4.2.1 Funding of teaching[29]

Funding of teaching and research are separated in Denmark. Higher education institutions as such receive separated budgets for teaching and research. In the following, we will focus on the funding for teaching.

Prior to the introduction of the taximeter-principle, the Danish financing system did not leave much room for institutional autonomy. Since 1981 (until the reform), education activities at universities were funded on basis of a forecast of passed exams – but there was no adjustment when forecasts turned out to be untrue. Such type of funding system could easily be manipulated. Vocational colleges were micro-managed before 1991. The complete production structure was predetermined by the Ministry. Budgets were calculated from staff-student ratios. Possibilities to internally relocate the public funds across different fields of study were limited. So funding received for students in economics had to be spent within this department, and could not be relocated to the physics department. Such a system is sometimes called "budgets itemised by program area" (*cf.* Skjødt, 1996).

Reasons to reform the funding system

The Danish higher education sector has been reformed drastically in 1992. In the government report from 1998 on the taximeter-model the following key-arguments for the reform are given:

- To promote efficiency, and to induce educational institutions to become more results-oriented and customer-focussed;
- To link the allocation of grants to educational production so that schools with more students and better results are rewarded accordingly;
- To avoid erosion of standards;
- To implement a system that is simple, fair, transparent and automatic;
- To promote quality-competition among higher education institutes.

[29] This section is primarily based on Canton and van der Meer (2001).

The 1992-reform consists of a new funding system combined with a decentralisation of the government structure. The main changes are:

- A change of the funding mechanism. As of 1994, the institutions have received their funds in the form of a block grant. The amount of government funding is set by the taximeter-principle, the topic of our next sub-section;
- The introduction of four-year agreements on the total number of study places per institute (before the reform agreements on total study places were made on a yearly basis), and a considerable increase in the number of study places. Universities and vocational colleges have the freedom to reallocate the study places over the different fields of study. This increases their flexibility and makes them better able to adapt to changes in demand, which should lead to a better match between supply and demand. Each institution decides how many students will be admitted to each program and selects the students in case demand outnumbers its capacity. Only a few expensive programs, *i.e.* medicine and dentistry, have a nationally restricted admission.

The taximeter-principle

In the taximeter-model funding is directly linked to the number of students who pass their exams. This funding-principle is therefore a good example of an output-based funding system. The Danish higher education sector receives funds from the Ministry of Education to provide education (research-funding is under the auspices of the Ministry of Research and Information Technology). The teaching component, which on average makes up one third of the revenues of Danish universities, is based on a unit-cost principle. For each student who passes an exam an amount of money is paid to the university. The total of these so-called active students determines the available budget. In this system each exam is weighted. The weights of all exams of a 5-year program add up to 5. Universities do not receive compensation for students who fail their exams or do not take exams. The tariff paid per passed exam, the 'taximeter', varies according to the field of study, and has three components:

- A tariff for the costs of education and equipment;
- A tariff for joint costs (*e.g.* administration, buildings);
- A tariff for practical training (for a few subjects).

For the year 2000, the Minister uses taximeters for 20 fields of study.[30] These tariffs are displayed in Table 4.1.

Table 4.1 :Tariff per full-time equivalent student for higher education in 2000 (DKK, excluding VAT)

Subject	Rate for direct teaching related expenditure	Rate for joint costs	Rate for practical training
Law, Economics, Danish, History etc.	24,700	5,800	
Psychology, Languages, Theology etc.	27,600	6,400	
Teacher Training (domestic science)*	27,600	7,900	
Mathematical Economics	32,800	6,400	
Educational Theory	32,800	7,900	
Physiotherapy	32,800	9,700	14,200
Marketing	34,200	6,400	
Teacher Training (old program)	38,100	7,900	33,200
Teacher Training (new program)	40,400	7,900	
Mathematics, Statistics	42,400	7,900	
Music, Communication, Journalism	42,400	9,700	
Athletics	47,800	7,900	
Geography, Dentistry	54,500	7,900	
Medicine	54,400	7,900	83,300
Computer Science, Physics, Chemistry, Biology	54,400	9,700	
Pharmacy	62,800	9,700	
Engineering, Agricultural Science	62,800	11,100	
Veterinary Science	83,700	11,100	
Ph.D.-program, non-laboratory subjects	87,900	21,100	
Ph.D.-program, laboratory subjects	132,000	21,100	

Source: Personal communication with Jesper Wittrup, Danish Ministry of Education.
Note: 100 DKK is about Dfl. 30,- or €13.64. Reported tariffs refer to annual public funding of a student who passed all exams in that year.
* Self-governing colleges of education have an additional rate for capital expenditure (6,800 DKK in 2000).

[30] But because of overlap, there are only 12 different tariffs, *cf.* Table 4.1.

When the taximeter-model was implemented in 1994, tariffs were calculated under two important restrictions:

- The switch to the new funding system should be budgetary neutral in the first year;
- The taximeter-model should not lead to a relocation of funds between universities in the first year.

Taximeter-tariffs were derived under these two restrictions, so these tariffs are predominantly historically determined. The tariffs are not derived from cost-calculation of the most efficient supplier (*i.e.* benchmarking), so historically created inefficiencies will not be eliminated.

Taximeter-tariffs are adjusted annually to balance the budget of the Ministry of Education. As of the introduction of the taximeter-model, there has been a lot of discussion about the level and differences between the taximeter-tariffs. Also the Ministry of Education has some questions about the current tariff structure, and the Ministry is considering to reduce the number of tariff groups. In addition, it has been suggested that there should be a premium for completion, as students often get stuck in writing their thesis. In Computer Science, for instance, many students leave before graduating. Recall that this would imply a move towards the current Dutch system, where university funding is largely linked to the moment of graduation.

Safeguarding the quality of higher education

As mentioned before, an output-based funding system could give rise to quality problems. What measures have been taken in Denmark to safeguard educational quality? The Danish Ministry of Education acknowledged the danger of falling quality of higher education. Therefore, the Ministry established (already in 1992) an evaluation centre: the *Evalueringsinstitut* (EVA). By performing regular evaluations of the educational programs this centre should improve and maintain the quality of higher education.

EVA is funded by the Ministry of Education, but it is an independent body with the task to make evaluations on the quality of the total study programs and to publish them. A negative evaluation does not have direct financial consequences for the institution, but the Minister could intervene when performance is not improved. Although EVA's reports are publicly available, the presentation is rather technical and it is written for the institutions and generally not read by the

students. According to EVA, no overall change in quality has been observed as of the introduction of the taximeter-model.

Another counterforce to the erosion of academic standards is the long-standing system of external examination. The external examiners should:

- Ensure a fair and equal treatment of all students;
- Monitor nation-wide quality standards;
- Advise the institutions on the quality of the programs, and annually submit a report to the institution of their impressions or critique (*cf.* Thune et, 1996).

Evaluation of the taximeter-model

A first evaluation of the taximeter-system has been performed by the Danish Evaluation Institute (EVA) in 1995. The Ministry asked the EVA to evaluate whether the taximeter-model has had any negative effects on educational quality. In the response the EVA concluded:

- No negative trends could be found in the most recent evaluations of the study programs. On the contrary, EVA actually found that the reform had resulted in more focus on student needs, and a more open attitude towards students' suggestions, for instance by taking student evaluations more seriously;
- The teachers' "professional ethic" in general prevent them from letting more students pass as a response to output-based funding;
- The intensive use of external examiners prevent the local examiner to let more students pass.

A second and much broader evaluation of the taximeter model, not only in higher education but also in other parts of the educational system and other government sectors where the taximeter-principle is applied, took place in 1998 (Undervisningsministeriet, 1998). The overall conclusions of this evaluation were positive, not only for higher education but also for the other systems investigated. In particular, it was concluded that as a result of the reform the management of the education sector has improved considerably. There is an increased focus on "value for money". For instance, managers are now more eager to find the best offer when buying new equipment or choosing a bank. Unprofitable activities are more rapidly discontinued, and the institutions have improved their ability to adjust and take new initiatives, where before the reform they would often wait and do nothing until a real crisis occurred.

Also, educational institutions now seem to be more inclined to provide a good service to their students. Typically, additional effort is made to reduce the number of drop-outs. Furthermore, most institutions consider the quality of their teaching programs to be the decisive factor in the competition process.

The above mentioned effects are more pronounced at the vocational colleges than at the universities. One of the reasons could be that university funding is less affected by fluctuations in the number of active students, since taximeter-grants cover only about a third of their total revenues (the remainder include grants for research, capital expenses and so forth).

Open-ended funding character

An often-mentioned drawback of the taximeter-system forms its open-ended character (at least in the short run). If more students pass exams, more resources are made available to the universities. It is not possible to calculate in advance exactly how many active students there are, and therefore it is not possible to predict the exact funding to be paid by the government. This has already resulted in "unpleasant surprises": in some years actual expenses exceeded the budget by almost a billion Danish crowns. Not surprisingly, the Ministry of Finance is especially concerned about this problem. The Ministry of Education has an agreement with the Ministry of Finance with regard to overspending. The Minister of Education may overspend 200 million DKK (approximately 26.8 million €) before intervention is needed. Some measures have been taken to decrease the likelihood of such negative surprises in the future. One of these measures is to set a fixed maximum grant for certain types of open education, for which it is particularly difficult to predict the number of active students

Internal allocation at higher education institutions

Most Danish universities also apply the taximeter-principle for the internal allocation of funds over the various faculties. But it is applied in a less strict fashion, in order to prevent too large budget relocations between faculties. For example, at University of Copenhagen a growing department receives more money, but not completely in accordance with the taximeter-principle. It can be expected that the effects of the taximeter-model are mitigated when the internal allocation of resources is not brought in line with the external allocation principle, as dictated by the taximeter-principle.

Internal application of the taximeter-principle suggests that a department with reduced student performance (*i.e.* more students failing to pass the exams) would receive less money.

4.3 Student support and tuition fees

4.3.1 Student support

Student support, in the form of state education grants and loans, is paid for by the state. Direct support is available for all students of 18 years and older under the governmental support scheme, the so-called *Statens Uddannelsesstotte* (SU-Styrelsen, 2001). Since students are regarded as financially independent from their parents, all students of 18 years and over can apply for a grant as long as their personal income does not exceed DKK 62.712 in 2001. Different amounts are awarded for students living with their parents and for students living independently. In 2001 the maximum amount granted to students living with their parents is DKK 2.042 per month. For students living on their own, the maximum grant was (in 2001) DKK 4.044 per month. In addition to this grant, students can apply for a student loan on a voluntary basis. For both categories of students the maximum value of the state loan is DKK 2.102 per month (in 2001). No other sources of direct or indirect support (through family allowances or tax benefits) are available.

In order to be eligible for support, students must be enrolled full-time in a non-salaried higher education course which is recognised by the state and is at least three months long. In addition, students must be Danish citizens and be at least 18 years old to receive support.

Students must start repaying the state loans at the latest one year after completion. The duration of the period of repayment cannot exceed 15 years. During the study period the State loans currently (2001) carry a 4% annual interest rate. On completion of the study period the interest rate is the current minimum lending rate of the Danish Central Bank (4.75% at the moment) plus 1%.

The 'voucher' system

At the beginning of a study programme, students receive monthly 'vouchers'. Each voucher gives the student the right to receive one month's grant and one month's state loan. The vouchers can be used for a total of six years, which is 12 months in addition to regular long higher education programs. This system was introduced in order to make student financing more flexible. Students

decide for themselves when they want to redeem their vouchers. Students may decide to 'save up' vouchers (up to four months in a year), which can be redeemed in the later months of their studies, when they may receive 'double monthly grants'. Students can save up vouchers, for example, for months when they know that they will make more money than the free amount.[31]

4.3.2 Tuition fees

As in other Nordic countries, there are no tuition fees in Denmark, and there are currently no plans to introduce fee.

[31] The Ministry of Education, 1994b.

5 Flanders

5.1 Introduction[32]

From 1987 to 1992, the overall education budget has rose by 26 million Bfr[33], which represented an increase of 13% (4% in real terms). From 1993 to 1998 the public budget for universities grew by 2405 million Bfr. In current prices this meant an increase of 12%, in contrast to a 16% increase of the total education budget. In real prices, correcting for inflation, the growth for the universities was 3%. The public budget for universities and total education is shown in table 5.1.

Table 5.1: The education budget per branch of the education system (Bfr. million)

Current prices	1993	1994	1995	1996	1997	1998
Universities	19683	19746	20162	20758	21473	22089
Total education budget	209793	219581	225749	231905	239155	245399

Source: Verstraete (1998)

In contrast to the developments in the funding for teaching and teaching related research, the public funds made available for basic scientific research at universities have expanded very rapidly between 1993 (Bfr 3100 million) and 1998 (Bfr 5544 million). This is an increase of 79% in current prices. Although no exact data are available, it can be stated that the income from contract research (third flow of money) also increased very rapidly in recent years.

5.2 Institutional finance: universities

In the decree of 12 June 1991 the government partially changed the way universities were funded. The new funding method is relatively simple, aiming at a decrease of central regulation, an increase in institutional autonomy and steering from a distance.

The Flemish Government informs the institutions annually about the expected allocations for the coming year. The university rectors react to that within two weeks, by presenting their own budget proposal for the coming year. The institutional budget plan shows both the expected expenses and resources concerning the basic funds, investment funds, social facility funds, research grants and other income, like tuition fees and examination fees. The level of the final budget allocated to the institutions is announced to the institutions as soon as the general public budget has been accepted. The grants for the basic funding and social facilities are awarded on a monthly basis, while the investment funds are awarded every three months.

[32] This section is partly based on Vossensteyn et al. (1998).

The universities have to report annually to the Ministry of Education concerning the way the funds the previous years are spent. The government has to formally approve this. Funds that were not used at the end of the year may be transferred to the next budgetary year, unless the Minister proposes another purpose for them.

In addition to these first-flow funds, universities can also obtain public funds from the second-flow of funding, which is distributed by the national research federations (NFWO, IWT, and IWONL). The different ways in which this funding is distributed will be discussed below.

Until 2000, universities received funds for (1) teaching and teaching-related research, (2) investments and (3) social facilities. The funding mechanism was organised in the following manner.

5.2.1 Teaching and teaching-related research

From 1996 to 2000, the first flow of funds for universities (*eerstegeldstroombekostiging*) has been based on strict funding formulas. Because the changes after 2000 are based on the funding levels until 2000 but the actual allocation mechanism is not very clear yet, we will start with discussing the 1996-2000 funding method. The first flow of funds for universities (*eerstegeldstroombekostiging*) contains a part which is specifically meant to cover the costs of teaching and teaching related research (know as 'the working payment to the universities'). This part is provided to the institutions as a lump-sum (*werkingsuitkering*). The lump-sum may be spent according to the own interests of the institutions. From the budgeting year 1996 onwards, these working payments to the universities (denoted by *Wao*) consist of three parts:

1) a part for academic courses, doctoral programmes (*doctoraatsopleidingen*) and teacher training courses;
2) a part for continuing studies (*Voortgezette Opleidingen*);
3) a part for General Practitioner programmes.

The first part of the working grant is organised in a funding model: a funding formula, which is closely linked to developments in the number of students. The funding formula consists of two

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33 1 Bfr = NLG 0.05463= € 0.0248 (March 2001).

main parts. First a fixed part and second a variable part. In 1991, when the new model was introduced, both the fixed and the variable components determined 50% of the budget. The flexible part of the funding varies according the fluctuations in the number of 'education-load-units' o*nderwijsbelastingseenheden* - OBE). A full-time student in humanities or social sciences is equivalent to one OBE, while a full-time student in science (including first-cycle medical and engineering students) is counted as two OBE. Medical and engineering students (second cycle) count for three OBE. Part-time students participating for at least 50% and at most 75% are converted into half of these units. Within the formula, the difference between the actual number of OBE and the number of OBE in a given base-year is important, as expressed in the following formula:

$$\mathbf{Wao_{1995+n} = \{Wao_{1995} + BEB * [(OBE_{1994}+n) - OBE_{1994}]\} * I}$$

According to this formula, the basic funding of the institutions (*Wao*) from 1996 onwards is based on the budget awarded in 1995, which is regarded as the fixed part (Wao_{1995}). This part counts for at least 50% of the total basic funding of the universities (Wao_{1995+n}). The flexible part of the funding formula is calculated as the multiplication of the constant amount for one basic unit (BEB, tariff, Bfr 97402) with the difference between the number of 'education load units' (OBE) in 1994+n and the number of OBE in 1994 (on the 1st of February). The total result of this calculation will be adjusted to general economic developments, expressed in a coefficient (I), which is based on the indexes for salaries and consumer prices in a 80% to 20% relationship. The differences in levels of funding for the various disciplines are expressed in the conversion of the number of students into the number of OBE per institution.

It should be mentioned that this funding mechanism hardly comprises stimuli to limit the time of study, because funding depends on the number of students. Students are financed for a maximum of twice the nominal cycle time. If a student enrols for the third time in the same academic year (at the same or at a different university) the institution is not eligible for financing for this student.

The other two parts of the working payment provided to the universities are mainly based on the number of graduates. The general amounts available for continuing studies and General Practitioners programmes are distributed over the universities on the basis of the average number of diplomas awarded in the last two academic years. Concerning the continuing studies, two types of diplomas are awarded: diplomas in advanced studies (*Aanvullende Studies*) and

diplomas in specialised studies (*Gespecialiseerde Studies*). The institutions receive twice as much for specialised diplomas than for advanced ones.

5.2.2 Investments

The 1991 Decree also states that universities have to present an investment plan for five years, which will be updated annually if necessary. The Flemish government funds the investments concerning the purchase, furnishing or expansion, renovation and maintenance of the estate for teaching, research and administrative activities, and the capital costs going along with it.
These investment costs of universities are calculated according to a funding formula:

$$\mathbf{IK_{1994+n} = [IK_{1994} + (\Delta TBO * EB/m^2)] * IB}$$

This formula consists of a fixed and a flexible part. The fixed part consists of the budget allocated for investment costs in 1994 (IK_{1994}). This amount is fixed for a number of years. The flexible part depends on the need for working space for each discipline ("delta" TBO), which is partly dependent on the developments in the number of students. This normative need for surface is multiplied by the basic unit price for each square metre, which is Bfr 253,1 (EB/m^2). In addition, the total sum is multiplied by a coefficient (IB), which reflects the index concerning the developments in building costs for the last five years.
In contrast to the basic budget of the universities, the subsidy for investments is earmarked and cannot be used as a kind of a lump-sum.

5.2.3 Social facilities

The allocation of funds concerning the social facilities for students, e.g. student restaurants, housing, etc., as well as maintenance are funded apart from the basic grants and investment funds. The social facilities are also funded according to a funding formula, which includes a fixed amount (the social facilities grant of 1994) and a flexible part that depends on the indexed growth in the number of fundable students:

$$\mathbf{SG_{1994+n} = [SG_{1994} + (\Delta FE * BESG)] * ISG}$$

In this formula, it is indicated that the budget awarded in 1994 is taken as the point of departure. In addition, the formula has a variable part. This comprises a multiplication of the difference

(ΔFE) between the number of fundable students of the previous year (1994+n-1) and the number of fundable students of 1993 on the one hand, and the basic allowance for each fundable student, amounting to Bfr 9.544 (BESG), on the other hand. The total sum is adjusted annually according the coefficient (IBG) reflecting the developments in the general need for social facilities.
The compensation for social facilities is earmarked, like the subsidy for investments, and contrary to the lump-sum basic funding of the universities for teaching and teaching related research.

5.2.4 Recent developments

In 2000 the funding mechanism for universities has been changed. The working payment of universities (for covering the costs of teaching and teaching related research) has been raised and is no longer related to the number of students. In the period 2001-2004 the working payment will be adapted every year on the basis of the index of labour costs and consumer prices, and raised if necessary.
In the recent past the link between funding and student numbers was one of the main barriers for a rationalisation of the university course supply. This policy measure, however, is only a transitional arrangement. In the period 2001-2004 an examination of alternative funding mechanism (in relation to a rationalisation of the university course supply) has to lead to an outline of a new funding system. The main touchstone of the new system has to be 'quality', according to the minister of education.

5.3 Institutional finance: Hogescholen

The decree of 13 July 1994 has set up a funding mechanism for the *hogescholen* that closely resembles that of the universities. The *hogescholen* receive payments to cover their personnel and operating costs. Each *hogeschool* receives a lump-sum (or 'envelope'). The decree specifies the overall sum for all *hogescholen* (art. 178). This sum is subsequently index-linked to the rise in unit labour costs and consumer prices. Before funds can be distributed can be carried out between the *hogescholen*, a number of deductions are made to cover certain costs which the government will still meet directly, such as salary costs for certain members of staff (art. 179 of the Decree 1994). After these deductions have been made, an overall sum is left for operational payments to the *hogescholen*. The sum per *hogeschool* is determined on the basis of the following criteria:

1. a historically fixed sum (art. 194)
2. a variable part based on finance-eligible units: a combination of student numbers (five-year average) and the weightings allocated to the courses (art. 195).

As in the universities, different weightings are given to fund eligible-students to determine the number of finance-eligible. Four groups are distinguished, to which the following weights are attached: 1.0 (e.g. commercial science and business administration), 1.2 (applied linguistics and one-cycle industrial science courses), 1.4 (architecture, biotechnology, social work, two-cycle industrial science courses) and 1.6 (product development, health-care and education).

The period 1996-2000 was a transition period for the calculation of operating payment, in which particular account has been taken of the current situation of the *hogescholen*. Each *hogeschool* received 100% of its 1995 cost-price in 1996 (historical fixed sum). From 1997 onwards, student numbers (period 1991-1995) and finance-eligible units (in the three previous years) also played a role. The historical fixed sum (based on the cost in 1995) was reduced from 100 % to 20 % between 1996 and 2000. In 2000, 64 % was distributed on the basis of finance-eligible units and 16% on the basis of student numbers (1991-1995).

Since 2000 *hogescholen* receive funds for investment directly from the government. The amount is assessed in advance (Berichten van de Vlaamse regering, 1999).

5.3.1 Recent developments

One of the main priorities of the new Flemish government is a fundamental reform of the funding mechanism for universities and *hogescholen.* The minister of education has commissioned a new (independent) research into the funding of the *hogescholen* in relation to the rationalisation of their course supply. In the meantime the lump-sum (*enveloppe*) for *hogescholen* has been raised with 200 million BFr, a onetime amount of 69 million has been provided for educational activities and onetime financial compensation to repair 'mistakes from former days' has been announced.

5.4 Student support and tuition fees

5.4.1 Student support

The grant system for students is an important means of promoting access to higher education. All students can apply to the Flemish Community for a grant. Payment of a grant is subject to a number of conditions (Ministerie van de Vlaamse Gemeenschap, 2000):

- The applicant must be Belgian or of a status equivalent to a Belgian
- The applicant must have successfully completed the previous school or academic year. Students retaking a year of their course are not entitled to a grant for the repeat year, nor are students whose previous year was of a higher level, and students who completed an entire university or non-university study-programme are also not eligible.
- The right to a grant is limited to one complete basic course. Therefore grants are not available for specialisation years or for a second certificate on the same or a lower level. However, students can apply for a grant when embarking on studies of a higher level. Graduates of a one-cycle basic course can, for instance, apply for a grant to support them during a two-cycle basic course or university course.

The principal criterion for eligibility is the income of the people on whom the student is dependent, which cannot exceed a particular sum. The upper earnings limit takes into account the number of dependants within a family. The grant is calculated on the basis of family income two calendar years before the application is made (reference year). It has been recognised that income tax does not always reflect the true financial resources of the family, and so the system has been adjusted to take account of the value of the family home. A relative standard has been chosen - where the value is more than 20% of the reference income, the student in question is no longer entitled to a grant.

The level of the grant is determined by the upper and lower earning limits and the type of student. If the family income is equal to or higher than the upper limit, there is no grant entitlement. If the income is below the lower limit in 2000/2001, the student is entitled to a full grant[34] amounting to:

[34] Students whose reference income does not exceed the upper limit by more than Bfr 50.000 are referred to as ‘near- grant-recipients'. Students of this kind do not receive a grant from the Flemish Community, but are entitled to apply for reduced college fees.

- 104.500 Bfr for a student living independently;
- 67.700 Bfr for a commuting student (travelling distance further than 10 km)
- 61.800 Bfr as a local student (living less than 10 km from the institution).

This form of direct support is provided through grants once or twice a year. About 23 % of the Flemish students receive such a non-repayable grant. Students have to collect 100 % of the study load each year. If they fail, they will lose their grant. Both grant and non-grant students have to retake the complete study year if they fail. A student's income also counts for determining whether students are eligible for student aid or not. As the study demands are rather strict, students do not have a lot of spare time to take a job.

In addition, all students, or rather their parents, are eligible for child allowances and tax reductions. By law, parents are liable for maintenance of their studying children. As a compensation, parents receive child allowances for studying children under the age of 25. Depending on the number of children in a family, the monthly allowance amounts to about 3.748 Bfr., 5.791 Bfr. or 7.983 Bfr. per student. Families with dependent children also may benefit from a tax reduction, depending on the number of children. A family with two children may claim a reduction of Bfr. 22.500, which is equal to a real benefit per child of approximately Bfr. 5.625 per year.

Support in kind is available for students. Students receive concessionary fares on Belgian public transport, they have access to cheap meals, sports facilities and some to student residences. In monetary terms, this type of support is estimated to be around 9.000 Bfr per university student per year and about 3.000 Bfr. per non-university student. It's up to the students to what extent they benefit from these facilities.

5.4.2 Tuition fees

Students have to pay tuition. The amount depends on the institution and type of programme they attend. In 1998 university students have to pay a minimum tuition fee of Bfr 3,200 and a maximum of Bfr 18,000 . For the non-university programmes students have to pay at least Bfr 2,000 and at the most Bfr 16,217 for long-term courses. Students receiving study grants may also be eligible for reduced fees. Tuition fees do not include the examination fees. For university and non-university exams, institutions may charge at most 2.000 Bfr. in addition to the tuition fees.

Near-grant-recipients have to pay 1.500 Bfr. and students receiving a grant pay 1.000 Bfr. as examination fee.

Foreign students in the following categories pay the same tuition fees as Belgian students:

- Students of foreign nationality whose parents (or legal guardian) have permanent or temporary residence in Belgium and work there (or did so in the past);
- Students who are citizens of an EU Member State;
- Students of foreign nationality who are resident in Belgium and who have refugee status accorded to them by the Belgian delegation of the United Nations High Commissioner for Refugees;
- Students from a developing country that is recognised as such by Belgium and who have been granted admission to university studies in Belgium by the minister responsible for co-operation with developing countries;
- Students of a country which has concluded a cultural agreement with Belgium and who have received a scholarship within the framework of such an agreement from the Ministers responsible for international cultural relations.

The annual costs of living have recently been studied. The major results are shown in table 5.2.

Table 5.2: Expenditure of Belgian students, 1998/993 (in Bfr)

Type of student	Annual expenses
University students living at home	68.000
University students living away from home	135.000
Hogeschool students living at home	80.000
Hogeschool students living away from home	141.400

Source: HIVA (2000).

6 France

6.1 Introduction

6.1.1 Types of institutions

The French higher education system consists broadly of four groups of institutions (HEIs).

Universities

The first group is made up of the universities. The universities have a scientific, cultural and professional character. In addition to the departments (which are the core elements of the university) other institutes can attach themselves to the university. There are three types of such attached teaching institutes: the *instituts universitaires de technologie* (IUT; created in 1966, they offer short professional courses), the *instituts universitaires de formation des maîtres* (IUFM; created in 1989, they provide teacher training), and the *instituts universitaires professionnalisés* (IUP; created in 1991, offering specialised professional courses in close co-operation with industry).

Grandes écoles

The institutes for higher learning, better known as *Grandes Écoles*, are the second group of HEIs. The public *Grandes Écoles* comprise a diverse set of institutions. These comprise the *Grandes Écoles scientifiques* (like the *l'école centrale des Arts et Manufactures, l'école centrale de Lyon, l'école nationale supérieure des Arts et Industries textiles, l'école nationale supérieure d'Arts et Métiers*, etc.), the four *écoles normales supérieures* (ENS), fourteen *grands établissements* (including institutions for social science and physics), public engineering schools, military schools, the national administration school, agricultural schools, veterinary schools, art schools, and architecture institutes. All of these institutions are perceived to provide high standard teaching and training. The private *Grandes Écoles* are engineering schools, institutions on business and commerce, and catholic institutions, recognised by the minister.

Secondary level institutions

The third group of HEIs is formed by the classes at secondary level institutions (*Lycées*). Two types of programmes are offered that are considered to be higher education programmes. These

special classes are the *Sections de Technicien Supérieur* (STS) and the *Classes Préparatoires aux Grandes Écoles* (CPGE).

The STS are professionally oriented classes located at the *Lycées*, providing two year courses. There are two main categories of courses: courses in the secondary sector (industry related) and the courses in the tertiary sector (service and business related).

The CPGE provide the preparatory training that is required to participate in the entrance competition for the *Grandes Écoles*.

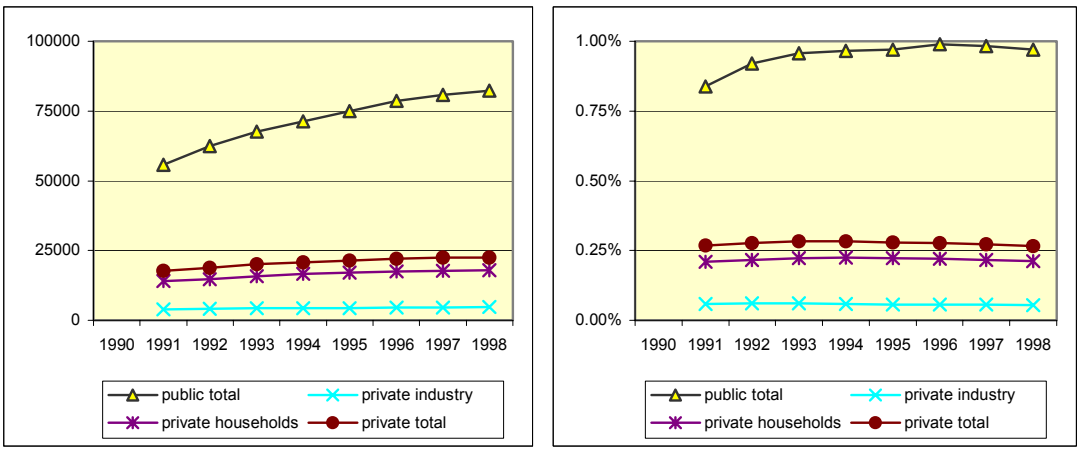
Other schools and institutions

The fourth group of HEIs is formed by a number of schools for paramedical and social professions and a number of other schools, all professionally oriented.

6.1.2 Public expenditure

The level of expenditure on higher education in France has increased steadily in the period 1991-1998. However, if we look at the real effort French society has made for higher education (expenditure as a percentage of GDP) this picture is less positive. The growth in public expenditure has levelled off and the growth in private expenditure (both households and industry) has turned into a decline

Figure 6.1 Expenditure on higher education, in mln FF and as a percentage of GDP



Source: MENRT (1999d).

6.2 Institutional finance

For the majority of French public higher education institutions, the S.AN.RE.MO model is used to allocate staff and financial resources to the institutions. In 1999, this input-based allocation-model was applied to 228 institutions (81 universities, 7 *Instituts d'Etudes Politiques*, 102 IUT and 28 engineering schools). The base for calculating the resources is the number of students enrolled. All programmes are categorised in a grid that serves as a weighting device. The level and type of programme determines the weight. In order to determine the number of staff an institution is theoretically entitled to, enrolment is weighted according to that grid. Totally 18 weights are used. The distribution of financial resources is determined by four criteria: the need for additional staff hours, the type of pedagogical function (technical versus general), the amount of floorsurface, and the compensation for non academic support staff. Fees paid by students are subtracted from the state subsidy.

A part of the resulting subsidy is devoted to compensate the lack of faculty members and rent temporary part time lecturers.

The theoretical results of applying the model are 'corrected', based on an evaluation of the balance in resources between universities and IUT, the contracts signed, and particular circumstances. (MENRT 1999; p58-59)

Private higher education institutions may receive public funds if they are recognised by the state. The amount of funds and their destination is part of a contract between the higher education institution and the state (MENRT, 2000e)

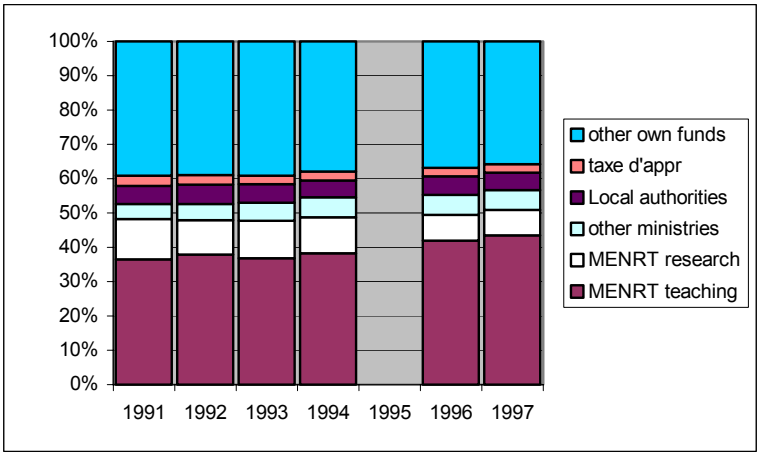
The State has remained responsible for investment in higher education, and is in principle the only decision-maker as regards building. However, since 1968, when they were granted autonomy, institutions have been able to put forward proposals regarding building and equipment corresponding to their needs, both for teaching and for research and libraries. University investment projects are examined and assessed by the *rectorat* in the light of the *académie* policy in higher education, and are then submitted to the Ministry, which will take the final decision. The State finances the building, the extensions and the equipment of universities. However, since 1989, it has shared financing with the territorial authorities. The projects U2000 and U3M have been and are important frameworks for these shared responsibilities.

Only part of the higher education funds is spent by the higher education institutions. Of the 48.5 billion FF budget in 1998 only 10 billion went through the universities.[35] The salaries (26.6 billion), student support schemes (8.2 billion) and construction (1.8 billion) are the main items that are paid directly by the state. (MENRT, 1998)

6.2.1 Sources of income of higher education institutions

The universities receive around 57% of their funds by the state. At the public engineering schools, this percentage is lower (46%) and at the teacher training colleges it is higher (76%). Research income is relatively high at engineering schools (15%); at universities (including IUT) this is only 5%. Compared to 1990, the part of state funds has risen from 52 to 56.7%. (MENRT, 1999)

Figure 6.2 Distribution of resources of public higher education institutions by source



[35] 1 FFr = NLG 0,33595= €0,15

Table 6.1: Sources of income of public higher education institutions, 1997, millions FFR

	universities		engineering schools		IUFM	
MENRT teaching	5962	43%	676	36%	600	71%
MENRT research	1110	8%	100	5%	0	0%
Other ministries	847	6%	80	4%	41	5%
Local authorities	711	5%	87	5%	44	5%
Droits universitaires (tuition)	1374	10%	83	4%	49	6%
Taxe d'apprentissage	299	2%	92	5%	0	0%
Research income	764	6%	276	15%	0	0%
Recurrent teaching income	1033	7%	88	5%	0	0%
Other income	1774	13%	385	21%	108	13%

Source: MENRT (1999).

6.2.2 Apprenticeship tax

A particular characteristic of higher education funding is the apprenticeship tax. Companies are obliged to pay part of their wage sum (around 0.5%) as apprenticeship tax. However if they participate in an apprenticeship scheme with a (higher) education institution, they may use that money in that scheme. The relatively small proportion of the funds from these schemes receives by universities is quite remarkable. However, the situation has ameliorated slightly in favour of public institutions throughout the years.

Table 6.2 Funds received through apprentice ship tax, broken down by receiving institution

	1993	1994	1995	1996	1997	1998
Total funds received (in million FFR)	1253662	1162305	1075075	955183	1007770	1072062
University	14%	15%				
IUT	9%	9%				
Engineering schools	3%	3%				
Other public ecoles	10%	11%				
Total public higher education institutions	35%	38%	39%	40%	41%	42%
Private higher education institutions	65%	62%	61%	60%	59%	58%
Proportion of total apprenticeship tax funds received by higher education institutions	31%	30%	28%	25%	21%	22%

Source: MEN (2000).

6.2.3 Research funding

There are three main categories of providers of resources for R&D activities: 'administrations' (public authorities), enterprises, and sources from abroad.

The public financial support for research at university-based laboratories or research groups is supplied by

- the higher education part of research budget
- the CNRS budget
- other national research councils

Public research funding is based on recurrent assessment and output based criteria. (Martin and Verdaguer, 1999)

Table 6.3: Resources provided for R&D activities by provider and destination (in billion FFr)

	1996		1997		1998	
Administrations	**89,3**	**45%**	**87,6**	**44%**	**87,1**	**43%**
Foreign research	10,6	12%	10,4	12%	10,4	12%
Administrations	64,4	72%	64,1	73%	64,4	74%
Enterprises	14,3	16%	13,0	15%	12,3	14%
Enterprises	**93,8**	**47%**	**96,0**	**48%**	**100,8**	**50%**
Foreign research	5,5	6%	5,7	6%	5,6	6%
Administrations	3,4	4%	4,1	4%	4,2	4%
Enterprises	84,9	91%	86,3	90%	91,0	90%
Foreign sources	**15,2**	**8%**	**14,4**	**7%**	**14,9**	**7%**
Administrations	2,3	15%	2,4	17%	2,3	15%
Enterprises	12,9	85%	12,0	83%	12,6	85%

Source: Project de loi de finances pour 1998 (2000).

Most part of the resources provided by the administrations are used within the sector: 74%. This is even more the case in the enterprise sector, where 90% of the resources provided are used within the enterprise sector.

The performers 'administrations' and 'enterprises' differ in their diversity of sources of funds. Enterprises generate 79% of its R&D-resources within the sector, whereas in the administration sector 91% of the resources come from the administration sector.

Within the administration sector, there are some differences between the various types of institutions regarding their sources of income, as table 6.4 shows.

Table 6.4: Distribution of R&D resources by source of funds

	core funding	own resources	contracts
Higher education institutions	**81%**	**4%**	**15%**
Cnrs	90%	4%	6%
Grandes écoles	51%	17%	33%
Universities	77%	3%	20%
Public research institutes	**81%**	**4%**	**15%**
EPST	85%	5%	10%
EPIC	76%	5%	20%
Other	91%	1%	8%
Non-proft organisations	**23%**	**40%**	**38%**
Defence	**100%**		
Total	84%	4%	12%

Source: MENRT (1997)

Grandes Écoles and non-profit organisation receive a relatively small part of their resources as core funding by the state. Their proportion of other sources, especially own resource is therefore relatively high. Another remarkable feature table 3 shows is that the proportion of contract resources in EPIC institutions as substantially higher than in EPST institutions (including CNRS *laboratoires associés*).

6.2.4 Recent developments

6.2.4.1 U3M

The strong growth of enrolment in higher education in the late 1980s and early 1990s was the main reason for the Minister of Education to launch the plan U2000 in 1990. The goal of this plan was to invest in the higher education infrastructure to accommodate the wave of new students. A crucial element in this was the co-operation between the central government and local and local authorities. Through such partnerships the central government was able to add to the financial contributions of the local authorities. The plan has lead to a geographical coverage in terms of higher education institutions that was considered to be complete by 1999. The part of

the HE-system that has expanded most (in terms of higher education institutions) are the IUTs. Although U2000 is generally considered to be a success, there are two omissions in the plan: the limited attention paid to research and the lack of measures focused on the situation in the Paris region.

The context for the new plan, the *Université du 3ème millénaire* (U3M), is completely different from the context of U2000. The main difference is the decline is enrolment in higher education. U3M has to ensure that higher education and research can contribute more to the economic development of the country (and the regions). Therefore, close relations between teaching, research and industry are considered to be essential. Because of the focus on economic development, regions are becoming more important.
U3M has a double focus. On the one hand it is a prospective reflection on the organisation of the education and research system and on the other hand it focuses on the programmation of higher education (especially research) within the framework of the *Contrat de Plan État-Région 2000-2006.*
More concrete, budgets are allocated to

- construct student facilities (like restaurants, libraries, and sports facilities). Around one quarter of the budget of U3M is allocated to these activities.
- enhance the participation of foreign students.
- invest in university facilities (especially in Paris and research facilities at new universities),
- regionally balance the resources and facilities for research. Research should be more responsive to the needs of the local and regional economy.

The regional participation in U3M will be determined in a process of negotiations between the central and regional governments within the framework of the *Contrat de Plan État-Région 2000-2006.*

The U3M plan is a joint effort of the state and the territorial authorities, completed by European structural funds. The total budget for the 2000-2006 is over 50 billion FFr. Of this budget, 40,2 billion FFr is covered in the planning contracts between the state and the regions (*Contracts de Plan de l'État-régions,* CPER). The ministry of education contributes 17.2 billion FFr to these contracts. The budget outside the contracts is to be spent on renovation of two museums, one campus and security of university buildings. (MEN 2000a)

6.2.4.2 Contractual policy

The contractual policy was initiated by Jospin in 1989. In 1998, the concept was relaunched. The aim of this contractual policy is both to give genuine new autonomy to universities and to allow the State to exercise fully its responsibility to boost and co-ordinate activity in higher education. Each establishment draws up a four years development plan corresponding both to national objectives and to local training needs. The plan covers all the activities in the establishment (teaching, research, internationalisation, management, etc.), regarding all actors (students, staff, public authorities, and external parties). The plan is addressed to the appropriate department of the Ministry, and then negotiated with it. Finally, a four-year contract is signed.
The contract is not a legal contract but has to be seen as a set of mutual, explicit and formalised engagements. However, this is not considered to be a problem since it serves other purposes as well:

- the contract is a factor in the overall development policy, common to all the players in the institution,
- the contract provides a unique opportunity for dialogue between the State and institutions,
- the contract is a management tool enabling projected means to be allocated (particularly operating funds).

In 2000, 188 higher education institutions (universities, IUFMs, engineering schools and *Grandes Écoles*) are involved in the contractualisation policy, comprising more than 75% of total enrolment.

The amount of funds available through contracts is 3,2 billion FFr in 1999. This is almost one third of the public subsidies provided by the state to the higher education institutions. The funds are earmarked. There are three categories: research (1.5 billion), buildings and facilities (750 million) and other activities (750 million) including new technology, student life, libraries etc. (Claeys, 2000).

6.3 Student support and tuition fees

6.3.1 Student support

Students at public higher education institutions and private state recognised higher education institutions are eligible for student support. The system of direct financial student support mainly

consists of grants. There are two types of grants: grants awarded on social criteria and grants awarded on university criteria.

The grants on social criteria are awarded to students on economic grounds, including the student's own income, that of his or her parents, and their family expenditure. The amount of income taken into consideration is announced each year by ministerial circular, and may vary from one year to the next. Only French students of 26 and under, preparing a national diploma or recognised university diploma, showing due proof of eligibility and studying full-time, may apply for a grant. The *recteur* of the *académie* is responsible for award procedures (management and examination of applications). Management of higher education grants is organised at *académie* level by the regional centres for university and school life (CROUS). In order to facilitate the student's application, a new, single social file on each student was adopted in all *académies* at the start of the 1996 school year, and contains both grant and housing applications.

Grants on university criteria are not granted according to economic criteria but according to merit. Grounds for award include assessment of work accomplished, and school results. They are awarded to students already in possession of a postgraduate degree (*Baccalauréat* + 5 years), or to students studying for competitive examinations of high standard such as the CAPES or *agrégation.*

The number of students benefiting from financial assistance (social grants, university grants and exceptional payments) rose from 272,996 in 1990/91 to 440,251 in 1999/00, which is 22.1% of total enrolment. In 1999, 97% of the grants awarded were grants on social criteria (MEN 2000, p.265).

Grants vary between FF 7,170 and FF 19,300 annually, depending on family income, the number of children in the family, the residential status of the student, the distance to the higher education institution and the level of the programme a student follows. The grant covers at maximum half of the costs of study and the cost of living.

Students not eligible for a grant may receive an interest free loan (*prêts d'honneur*), which is an income contingent loan and is allocated by a committee of the education institution (*Académie*). In 1998 3353 of such loans were provided.

Furthermore, French families with studying children benefit from child allowances and tax deductions. Parents are financially responsible for their children until the age of 18. In addition, parents can benefit from child allowances and tax reductions if their children are under the age of 26 and are following (higher) education. The amounts of these benefits depend on the number of children in the family. Child allowances for the first child amount FF 2,054, for the second child FF 2,660 and for any further child FF 2,855 annually. Furthermore, tax reductions are available for families with (studying) children. Student support in terms of fiscal measures amounted 9 billion FF in 2000 (Assemblée, 2000).

Public expenditure on student grants (*bourses d'études*) increased throughout the 1990s, but as a percentage of the GDP, the growth levelled off in the mid 1990s.

Table 6.5 Public expenditure on student grants

	1991	1992	1993	1994	1995	1996	1997	1998
In current prices, mln FF	4289	5339	6422	7082	7575	7476	7040	7297
% of GDP	0.06%	0.08%	0.10%	0.11%	0.11%	0.11%	0.11%	0.11%

Source: MENRT (1999d).

6.3.2 Tuition fees

In France, all students in first and second cycle programmes, except those receiving a study grant, have to pay a small registration fees. The amount to pay depends on the type of programme and the type of institution one is enrolled in. The basic fee for 2000-01 was FFr 849 (€129.5). For the engineering programme it was FFr2369 (€361) and for health related subjects it varied between FFr1898 and FFr5317 (€289 - €810).[36] The level of the fees charged at public higher education institutions is decided by the Ministry of Education. At private higher education institutions the tuition fees are set by the institutions.

Students in third cycle university programmes pay also a small registration fees. The amount to pay depends on the type of programme and the type of institution one is enrolled in. The level of the fees charged at public higher education institutions is decided by the Ministry of Education. For other post-initial programmes at public higher education institutions and at private higher

[36] source: http://www.education.gouv.fr/sup/tauxscol/tauxscol.htm

education institutions the prices are set by the higher education institutions themselves. The levels vary from FFr849 for basic studies up to FFr5317 for degrees in specific subjects. Fees charged by private institutions vary between FFr10.000 and FFr40.000 annually. In addition, French students have to pay a health insurance fee varying between FFr1.500 and FFr2.000 annually.

6.3.3 Recent Developments

6.3.3.1 Plan social étudiant

An important element in the discussions and plans on higher education is the social situation of the students. There is a national social plan for students (*Plan social étudiant*), effective since 1998. This four-year plan has three major components:

- financial aid: the plan is to increase the number of students receiving aid by 30% and to increase the average level of the financial aid by 15%. In 1999, four new measures were introduced:
  - *bourse de cycle*: a grant for students in the first cycle who have failed their first year or wish to re-orient themselves (in 1999, 13,621 students received such a grant);
  - *bourse à taux zéro*: students from lower income families are exempted from the payment of all registration fees and contributions to social services, in total around FFR 2000. 12,639 students received such a grant.
  - special grants (5368 in 1999); and
  - merit-based grants for school-leavers with excellent grades (193 in 1999).
  - in 2000 a grant is created for students in the second cycle (bourse de second cycle) who have failed their first year or wish to re-orient themselves (7,750 students in 2000)

  The government continues to augment the student support system. In 2000 funds have increased by 9.5% over 1999.

These measures are related to the ministers' dedication to democratise higher education. A recent survey showed that universities still educate the elite. The proportion of students from the higher social strata is relatively high at universities, whereas the participation of students from lower social strata is relatively high in the short vocational programmes (IUT and STS)

- a charter in which the role of students in the regional and national organisations on student facilities (CROUS and CNOUS) is described.

- facilitating visiting foreign students: by streamlining procedures and by offering short programmes (1-3 months) geared to the needs of foreign students
- Within the region Ile de France, the ministry subsidises public transport for students.

7 Germany

7.1 Introduction

The German system of higher education is a binary system that consists of a university and a non-university (*Fachhochschulen*) sector. Each *Land* within the federal German system has its own ministry responsible for higher education. At the federal level the *Bundesministerium für Bildung und Forschung* is responsible for the implementation of the federal law on higher education (*Hochschulrahmengesetzes*, HRG). In 1998 in Germany 344 institutions of higher education existed.

The budget of the institutions

In table 7.1 figures are presented for the total expenditure of all German institutions of higher education from 1980 through 1998. The federal government (*Bund*) provides only 17% of the (public) funds, while the *Länder* governments finance the residual and major share of the public expenditure on higher education.

The sources of income of the German institutions of higher education (1993-1998) are presented in table 7.2. This table makes clear that the basic subsidies (*Grundmittel*) are the most important source of income (82% of total income). The additional research grants (*Drittmittel*) constitute in 1998 about 15% of total income, whereas the *Verwaltungseinnahmen* (see section 4.2) make up about 2 % of institutional income (academic hospitals excluded). Universities (15%), more than the Fachhochschulen (4%), have additional research income (*Drittmittel*). Of this additional research money, according to the Wissenschaftsrat (2000) 31% originated from private sources (business enterprises 26% and non-profit organisations 5%).

Despite the enormous growth in enrolment, public expenditure (in real prices) hardly increased. As a consequence the German system of higher education still is in a financial crisis.

Table 7.1: Expenditure (nominal) of German institutions of higher education (in million DM[37])

	Universities		Fachhochschulen		Total
	Current exp	investment	Current exp	Investment	
1980	14613	2444	1178	192	18427
1985	18895	2586	1533	275	23309
1990	24876	3442	1980	376	30675
1993	41527	4241	3198	598	44725
1994	37727	4717	3543	702	46690
1995	39526	4739	3700	923	48888
1996	40341	4980	3920	1064	50305
1997	40959	4769	4003	1189	50920
1998	41409	4859	4146	1149	51564

Note: From 1991 on: former GDR included; academic hospitals included.
Source: Statistisches Bundesamt(1995: 1998: 2000).

Table 7.2: Sources of income of German higher education institutions (in million DM)

	1993	1994	1995	1996	1997	1998
Grundmittel	17283	17751	18684	18844	18589	18865
Drittmittel	2817	2977	2979	3306	3440	3520
Verwaltungseinnahmen	451	505	501	498	535	569
Total	20551	21233	22164	22648	22564	22954

Note: Academic hospitals excluded.
Source: CHEPS Higher Education Monitor, 2001.

In the next section, attention will be paid to the way basic subsidies are allocated to the institutions of higher education and the allocation of additional research grants is shortly discussed.

7.2 Institutional finance

7.2.1 State

7.2.1.1 Grundmittel

German higher education is publicly funded, and institutions have to follow the budgeting and accounting laws of German public administration. These laws, although set by the individual

[37] 1 DM=€ 0.511

states, are more or less similar across the country. The main restrictions derive from rules such as:

- the line item budgets (representing expenditure categories) are fixed prior to the fiscal year;
- the budget may not be spent "across" line items;
- institutions do not get lump sum funding for staff expenditure, rather it is - according to the *Stellenplan* - allocated on a position by position basis; thus, institutions cannot spend personnel funds for other purposes, even if this is deemed to be necessary and appropriate;
- funds (unspent balances) may not be transferred to the following fiscal year.

However, as will be shown below, during the last few years in a number of German Länder substantial changes have been started. Some Länder (e.g. Bayern) stick to line-item budgeting, whereas others enable HEIs to spend across line items (e,g. Nordrhein-Westfalen and Rheinland-Pfalz), and some have even created real lump sum budgets and only maintain *Stellenpläne* for *Beamte* (e.g. Nieder-Sachsen, Baden-Würtenberg and Hamburg). It may be expected that in the coming years almost all Länder will introduce some form(s) of lump sum funding regarding a substantial part of the total budget (see e.g. Ziegele, 2000).

The annual budget, in which the state subsidies for the individual institution are presented, is included in the state law. The budget is subdivided into expenditure categories (line items) and positions (for personnel, described in the so-called *Stellenplan*). The budget is an integrated budget for education and research. Teaching and research are not funded separately. Usually the budget is already subdivided according to the institutional structure, and the positions are already assigned to the departments and institutes. The budget thus pre-determines the total expenditure process for the fiscal year.

The public (basic) funding of institutions of higher education is - apart from some exceptions- not the result of using a formula for calculating budget components. The funding is based on institutional budget requests, each approved - in a process of budget negotiations - by the authorities on the basis of institutional assessments (allowances by reimbursement). The starting point is the *Stellenplan* of the last year. Therefore, the budgeting process can be characterised to a large extend as incremental and input-oriented. The amount of *Grundmittel* received by a university or *Fachhochschule* is not so much influenced by the actual number of students. Below it will be stated that this situation is changing since in a number of states forms of formula funding have been introduced for increasing parts of the available total budgets.

7.2.1.2 Investments

Financial investments in new buildings, equipment for new buildings, and equipment above a certain threshold level (150,000 DM) is financed jointly by the *Länder* and the federal Minister of Education. The *Länder* ministers may decide to contribute the total amount to these investments. However, if they want to receive federal money, they have to process the project through the national planning procedure (*Rahmenplan*), in which the *Wissenschaftsrat* evaluates the application and a joint national body of the *Länder* and the federal government makes the decision on whether or not to allocate funds. Construction and maintenance of buildings is neither decided nor administered by the institutions themselves. Special *Länder* administration "offices" (*Staatshochbauverwaltung*) are in charge of these tasks. Only the operating of the buildings is budgeted and administered by the institutions. There are some efforts to make universities owner of their buildings. For example, in Lower Saxony a concept for a new law has been written that enables HEIs to become a 'Stiftung' which is allowed to be owner of buildings and land.

7.2.1.3 Developments

During the last few years the most visible issue (in literature and press) is the discussion on the introduction and expansion of *Globalhaushalt* at public higher education institutions. There is a clear trend that state governments (*Länder*) are willing to give institutions more flexibility with regard to the (internal) allocation of funds according to their own discretion, and with fewer limitations fixed in advance. In a few states (Hessen, Niedersachsen, Hamburg, Bremen and Nordrhein-Westfalen) some selected institutions have been provided with a certain extended flexibility to spend across the line items. In quite a number of states, pilot attempts are planned or underway to test "block grant budgeting" (*Globalhaushalt*), which should give the institutions more leeway in the internal allocation of funds and positions and with respect to budget carry-over to the following fiscal year.

The flexibility of a (public) higher education institution to generate and spend revenues may also partly be linked to the accounting system used. The are two major systems of accounting: the traditional system of accounting in the public sector e.g. a cash-based system of *Kameralistik*, and the commercial or *Kaufmännisches* system, which only exists in Hessen and Lower Saxony (Koelman and de Vries, 1999). Under the (traditional) cash-base accounting system, public

higher education institutions in Germany are not allowed to spend the resources they generate by contract research and teaching as they please. They have to have a permit (*Ermächtigung*) to generate commercial activities and income. In order to generate income, the higher education institutions need to have an *Einnahmetitel*. Profit generated within a certain *Einnahmetitel* must be used within the same title. Public higher education institutions do not have the ability and the right (except in Lower Saxony) to build up funds (*Vermögen*) for themselves. Under the commercial accounting system, no such rules apply.
However, the (non) relation between traditional accounting and commercial activities is not very strict. For example, in Baden-Würtenberg universities, though practising *Kameralistik*, universities are allowed to found commercial companies (CHE, 2000) The same applies to the relation between the traditional accounting and the use of additional earned income. For example, in Nordrhein-Westfalen, where also the traditional accounting system is used, universities can spend these resources for purposes without the *Einnahmetite*l.

Given the need for more flexibility the financial accounting system became more and more under discussion. In some *Länder* (Hessen and Lower Saxony), the higher education institutions started to use the commercial accounting system. (see e.g. Wissenschaftlicher Beirat zur Begleitung des Modellvorhabens, 1999). The majority of higher education institutions however, is still obliged to use the cash based system. Nevertheless, most higher education institutions, and some regional legislators try to introduce certain elements of the commercial accounting system. An important example of this is a reduction of the number of line items. Moreover, as has been stated above, also under a traditional accounting system more flexibility is possible. Another reason for the move away from the cash based accounting practice is the need for more openness toward the funding agencies as well as the general public. It is also seen as an important method to enhance institutional planning, steering and control. University-chancellors discuss whether there should be some standardisation in the accounting systems. Although there is a general agreement on such a process of standardisation, it is realised that it will take considerable effort and time to achieve this. A ‘forced’ and rapid transition from cash-based to commercial accounting is not considered to be desirable. The introduction of *Globalhaushalt* (lump sum funding which will give more institutional freedom in spending) is seen as an important step towards that goal.
A standardisation of the financial accounting system in use across all *Länder* is also adhered by the KMK because this would prevent inequalities in chances between higher education

institutions. However, it may be expected that efforts for more standardisation above all will take place within the single *Länder* (e.g. to create a uniform '*Kostenartenplan*' for cost accounting) and not so much between the *Lánder*.

During the last few years in all the *Länder* the introduction of performance budgeting for the allocation of parts of the basic funding has been discussed. In a number of states, (pilot) attempts already have been made.[38] It may be expected that all the states will introduce some form of formula funding in the coming years or will introduce some form of contract management (see below)

A few years ago the committee of education ministers (*Kultusministerkonferenz, KMK*) set up a working group to investigate the possibility of introducing some form of formula funding. It was felt that, especially where the teaching budget is concerned, the German universities were not in an 'equal' position. The investigations sought to arrive at proposals for making the teaching budget more dependent on variables connected to teaching. Variables such as teaching load, performance and innovation plans were considerd. First, the working group presented an overview of the current situation in the respective Länder of Germany with regard to the issue of formula funding. It concluded that in 1995 four states employed - to some (limited) extent - formula funding. These are Niedersachsen, Nordrhein-Westfalen, Rheinland-Pfalz, and Sachsen.[39] In Rheinland-Pfalz, all current expenditures are included, whereas in Niedersachsen and Nordrhein-Westfalen the formula-funds concern non-personnel expenditures as well as expenditure on some staff expenditure (*nebenamtliches Personal*). In Sachsen they only concern funds for non-personnel expenditures. In their yearly financial reports and budgets, universities often do not even include personnel budgets into their overviews. This is due to the fact that higher education institutions have no significant influence on personnel expenditures.

In Bayern and Baden-Würtenberg, proposals for the introduction of funding formulas were approved and subsequently implemented. Since 1995 also five other states introduced formula funding (see note 10). Al in all during the last few years 11 of the 16 German Länder have introduced a form of formula funding for an increasing part of their budgets.

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[38] These states are: Baden-Würtenberg, Rheinland-Pfalz, Nordrhein-Westfalen, Bayern, Sachsen, Hamburg, Hessen (soon), Niedersachsen, Berlin, Schleswig-Holstein and Hamburg. See e.g. CHE (2000).

[39] Sekretariat der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (1995).

Instead of experiments with formula funding recently in some other *Länder*, especially the Stadtstaten (e.g. Bremen), contracts (*Zielvereinbarungen*) have been used. The fact that Stadtstaten only have one or two universities makes it more efficient for them to introduce contract management than to develop a sophisticated formula. Contract management can also be regarded as a kind of performance-based budgeting. Hamburg is the first small *Land* that combines contract management with the additional implementation of a formula.
Although it is often thought otherwise, contracts may lead to a very detailed state regulation. There is a 'danger' that the state wants to include agreements on a very detailed level (Kaiser *et al*., 1999).

Since a recent change in August 1998 of the federal law on higher education (*Hochschulrahmengesetzes*, HRG) institutions of higher education are permitted to award Bachelor's and Master's degrees (see article 19, HRG).[40]
As a result of this amendment to the federal law on higher education universities und Fachhochschulen started to set up new Bachelor's and Master's degrees. This experimental phase has lead to discussions about whether the Bachelor's and Master's degrees should exist in addition to the old structure or whether they should replace the old degrees. For the moment the new degrees exist in addition to the old degrees.[41]

A Bachelor's degree offers students a professional qualification for the labour market. A Master's programme is open to graduates of different Bachelor's programmes. In contrast to Diplom degrees (where in case of a Fachhochschule graduate *FH* is added to the Diplom), there is no formal distinction in titles granted by a university or Fachhochschule. Two kinds of degrees are awarded. On the one hand Bachelor/Master of Arts/Science degrees for academic oriented courses and on the other hand Bachelor/Master of Engineering degrees for vocational oriented

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[40] Article 19, HRG: ''(1) Zur Erprobung können Studiengänge eingerichtet werden, die zu einem Bachelor- oder Bakkalaureusgrad und zu einem Master- oder Magistergrad führen. (2) Auf Grund von Prüfungen, mit denen ein erster berufsqualifizierender Abschluss erworben wird, kann die Hochschule einen Bachelor- oder Bakkalaureusgrad verleihen. Die Regelstudienzeit beträgt mindestens drei und höchstens vier Jahre. (3) Auf Grund von Prüfungen, mit denen ein weiterer berufsqualifizierender Abschluss erworben wird, kann die Hochschule einen Master- oder Magistergrad verleihen. Die Regelstudienzeit beträgt mindestens ein Jahr und höchstens zwei Jahre. (4) Bei konsekutiven Studiengängen, die zu Graden nach den Absätzen 2 und 3 führen, beträgt die Gesamtregelstudienzeit höchstens fünf Jahre.'

[41] The university of Bochum, however, is the first and the only in Germany to abolish the Diplom and startéd with only BSc and MSc in the academic year 2000/2001.

study courses. All these courses, which are funded by the German government, must be accredited[42] instead of registered, as is the case for the "old" courses.

7.3 Student support and tuition fees

7.3.1 Student support

Students in the tertiary sector who have no other means (mainly from their parents' income) of maintenance and cost of study can receive financial assistance (*BAföG*) under the terms of the Federal Training Assistance Act (*Bundesausbildungsförderungsgesetz*).

The duration for which such assistance is payable (*Förderungshöchstdauer*) varies according the nominal duration of study programmes (*Regelstudienzeit*, normally 6 to 12 semesters). The limits are specified for each type of programme, either in the Federal Training Assistance Act or in the form of an ordinance. After their fourth subject-related semester, students only continue to receive funding if they have achieved the study results usually attained by that time. The monthly amount depends on the student's own income and financial means as well as those of his or her parents and spouse.

The financial assistance is also provided during non-lecture periods to meet students' requirements for that time. Since 1st July 1996, the full assistance available to students in higher education not living with their parents has been up to DM 1030 per month (made up of DM 860 for their maintenance plus DM 80 health insurance allowance, DM 15 for long-term care insurance allowance and up to DM 75 rent allowance) in the original Federal Republic. The highest rate of assistance in the new Länder in eastern Germany has been adjusted to match that in the original Länder of the Federal Republic and for students not living with their parents is now DM 1020 per month (DM 700 for their maintenance, DM 70 health insurance allowance, DM 15 long-term care insurance allowance and up to DM 235 rent allowance). Half of the amount is provided over the maximum period for which assistance is payable as a non repayable grant, while the other half takes the form of an interest-free state loan. Repayment terms for this state loan depend on social considerations and income. Once the maximum period during which

[42] In the plenary session of 21 and 22 February 2000 the Association of Universities and Other Higher Education in Germany (the *Hochschulrektorenkonferenz*, HRK) made proposals to implement the assessment procedures.

assistance is payable has been exceeded, students, as a rule, only receive funding in the form of a bank loan, which is subject to interest.

In addition to financial assistance provided under the Federal Training Assistance Act, there are other sources of funding available to students. In some Länder, for example, the student associations at the institutions of higher education provide loans of varying amounts in cases of extreme social need. Several smaller, predominantly regional foundations, which usually have private funds at their disposal, also provide needy students with assistance.

Particularly gifted students may receive a grant from relevant foundations (*Begabtenförderungswerke*). These foundations generally maintain close links with churches, political parties, trade unions or industry. One exception, however, is the *Studienstiftung des deutschen Volkes* (German National Scholarship Foundation), which does not adhere to any particular ideology and which is also Germany's largest foundation of its kind. Both the Federation and the Länder support the work of these foundations by providing substantial funding, the greater part of which is provided by the Federation. The German Academic Exchange Service (*Deutscher Akademischer Austauschdienst* - DAAD) offers grants for foreign students and young academics to pursue studies or further education of limited duration at a German higher education institution. In addition to the DAAD, some Länder also have special funds for providing assistance to foreign students at the local institutions of higher education.

On completion of a first degree, students may also receive scholarships to support their further studies in line with the post-graduate assistance acts (*Graduiertenförderungsgesetze*) of the Länder. The foundations for gifted students (*Begabtenförderungswerke*) also provide students who have already completed a first degree with grants to enable them to study for a doctorate (Promotion).

In addition to the direct financial support available to students from low-income families, all students under the age of 27 benefit through the tax allowances to which their families are entitled and which are laid down in the German Income Tax and Child Benefit Acts. If students finish studying before their 27th birthday, the financial benefits enjoyed through their family come to an end with the end of the course of study. It is the parents and not the students themselves who are entitled to this form of support. Further indirect forms of financial assistance

for students include reduced health insurance rates and the fact that time spent studying is partially acknowledged by the pension insurance authorities.

Recent developments

From April the 1st 2001 new regulation will come into force. Total state expenditure for student support will drastically be increased with nearly 50%, i.e. DM 1.3 billion, compared to 1998. BAföG will become available to more students[43] and the (maximum) monthly payment for students not living with their parents will be increased from DM 1030 to DM 1140 (Bundesministerium für Bildung and Forschung, 2001).

7.3.2 Tuition fees

Generally, no registration fees, semester fees or examination fees are imposed for degree courses in higher education, either for German or for non-German students. However, all students have to pay a minor contribution for the use of the institution's social facilities. If the institution has an organ of student self-administration (a General Student Committee - *Allgemeiner Studentenausschuß*) students also pay an additional contribution. Similarly, no fees are charged for courses at state-run *Berufsakademien*.

Some states have implemented or intend to implement fees for long-term students. For example, in Baden-Würtenberg students who study longer than the *Regelstudienzeit* (formal length of the programme) plus 4 semesters must pay 1000 DM per semester. In Bayern students who start with an additional second study have to pay a fee (800-1000 DM).

Consequently, fees are no barrier for access to (initial) higher education. Although recently there has been a fierce debate regarding the introduction of tuition fees at public higher education institutions, these higher education institutions (still?) are not allowed to collect fees for initial programmes. However, other direct costs to students (cost of living) may be an impediment for certain groups of potential students to enrol. There is, as explained in section 4.3.1 a system of student support to cover these costs through grants and loans, but only 17% of the student body receives financial support through that system.

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[43] For example, in case of a family with two studying children the maximum payment will be given to them if the gross parental monthly income is not higher than DM 3900 instead of DM 2900 under the old BafögG regulation.

Private higher education institutions are allowed to collect fees and these fees are sometimes substantial. Many private higher education institutions offer special loans programmes to cover the fees. Because of this, the private higher education institutions charging high fees do not consider these fees to be an impediment for talented students to enrol.

In all *Länder*, both public and private higher education institutions may charge fees for enrolment in *Weiterbildung* education programmes.[44] However, the level of the fees at the public higher education institutions is (to some extent) regulated.).[45]. In Hessen, for instance, fees for *Weiterbildung* have to cover all costs of these programmes.[46] The higher education institution determines the level of the fees. In the 'contracts' (see above) between the region Hamburg and the university, and the region and the *Fachhochschule*, the fees for *Weiterbildung* are set at at least 60% of total costs. In the long run, this percentage should raised to 70%. In the contract

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[44] Post-initial higher education programmes can be categories in four main groups. The first group comprises the traditional programmes[44]: *Aufbau-, Zusatz-, and Ergänzungsstudien*. *Aufbaustudien* are advanced programmes in the same subject as the initial programme completed. *Zusatzstudien* are advanced programmes in a discipline other than the initial programme. *Ergänzungsstudium* are advanced programmes for FH-graduates. The latter are rather insignificant as far as enrolment is concerned. The second group comprises the newly introduced Master degrees. The third group are the doctorate programmes and the fourth group of post-initial higher education programmes are other (short) programmes/ courses called *Weiterbildung*. These courses may be formal courses leading to recognised degrees as well as informal courses leading to all kinds of certificates.

[45] In some Länder, these regulations do not allow fees for post initial higher education programmes other than *Weiterbildung*.

between the region Hamburg and other higher education institutions, the fees are set at 100% of current costs. In Bavaria, the level of the fees is determined by the government.
For the other types of post-initial higher education programmes, private higher education institutions are allowed to levy fees; public higher education institutions are not.

For participants in *Graduiertenkollegs*, grants are available. Although these grants are not very generous, they are supposed to cover all costs.

[46] The higher education act is not very clear regarding the level of the fees. On the one hand they have to cover all costs and on the other hand they have to take into account the value on the market and the income of the participants.

8 New Zealand

8.1 Introduction

Publicly funded higher education in New Zealand is provided by four types of higher education institutions. There are seven universities, 25 polytechnics, four colleges of education and three *wananga*.
At the universities, teaching and research activities are interwoven, as they are in funding, to stimulate the intellectual independence of students. In 1997, around 113,000 students were enrolled at universities. University programmes lead to bachelor, master and doctorate degrees, as well as to post-graduate diplomas.

The 25 polytechnics provide a wide variety of vocational and professional programmes. They also do applied research. In 1997, 132,000 students were enrolled. The programmes lead to various certificates, diplomas and degrees. A diploma opens access to a bachelor-study at a university. A degree is an entrance qualification for a university master programme.
The *Colleges of Education* provide teacher training and do educational research. In 1997 15,000 students were enrolled in the programmes leading to a teaching diploma.
The three *wanangas* provide teaching and research activities on *ahuatanga Maori* (the Maori traditions and customs) In 1997 around 1300 students were enrolled.

In addition to the publicly funded higher education institutions there are several thousands of private *training establishments* (PTEs). Between 700 and 800 of these are registrated by the New *Zealand Qualifications Authority*, which means that they deliver recognised diplomas. Around 34,000 (fte) students were enrolled in these PTEs. Around 2000 fte students are subsidies by the government.

The higher education institutions have a large degree of autonomy. They have almost complete freedom of spending, freedom to set the tuition fees and to set their own labourcontracts. The teaching programmes of universities are accredited by the *Vice-Chancellors' Accreditation Committee*. Accreditation is a *conditio sine qua non* for public funding.

8.2 Institutional finance

Basic funding of teaching activities is based on a funding formula, using the EFTS- (*equivalent full-time student*) system. The institution and the Minister agree upon a number of EFTS to be provided. Based on the number of EFTS public funding is allocated (*money follows student*). Since the legislator assumes that faculty use research activities to improve their teaching activities, fundamental research is also funded according to the number of EFTS. Funding varies according discipline and type of institution.
Restricted research funding is provided through the *Public Good Science Fund* (PGSF), administered by the *Foundation for Research, Science and Technology*. Universities, private research institutes and individual researchers are eligible for those funds. In addition there is the *Marsden Fund*, focusing on *blues skies* projects (i.e., no direct link with applications).

Table 8.1 presents an overview of the resources of universities by source.

Table 8.1: University resources by source, 1997

	in mln. NZ$[47]	in %
Basic public funding	610	51,9
Fees	249	21,2
PGSF	200	17,0
Other	316	9,9
Total	1177	100

Source: NZVCC, 1999

Table 8.2 presents some more information about the funding of higher education institutions in New Zealand. If we compare the data from table 8.1 and 8.2 it shows that government funding has become less important and student fees and other sources have become more important.

[47] 1NZ$=€0.48

Table 8.2: Breakdown of resources of higher education institutions by source, in %, 1999

Type of provider	Government funding	Student fees	Other sources
University	47.1	23.7	29.1
Polytechnic	57.0	31.2	11.7
College of education	63.6	19.2	17.3
Wananga	63.0	21.8	15.2
All higher education institutions	51.1	25.8	23.1

Source: Ministry of Education (2000).

8.2.1 Basic funding of teaching and research

Tertiary basic funding for teaching and research is based on student enrolments in courses leading to quality assured qualifications and is designed to subsidise the cost of tuition for each domestic student studying at that provider. Therefore it is also called a *tuition subsidy*. It is based on the EFTS funding formula[48]:

NZ$ paid annually = Sum of (N x EFTS Course Factor x NZ$Funding Rate)

where:

- *N* is the number of eligible domestic students formally enrolled (valid student enrolments) on each course offered by the provider;
- the *EFTS Course Factor* is the student work load represented by that course, calculated as a proportion of 1.0 EFTS which is the workload that would normally be carried out by a full-time student in a single academic year; and
- the *NZ$ Funding Rate* is the level of subsidy for domestic students determined by Government for the delivery of a course.[49]

[48] EFTS=Equivalent Full-Time Student.

[49] Example

Number of eligible students enrolled		250
x course EFTS factor consumed in a 12 month period	0.39	
x $ rate of funding category (A1)	$5,045	
Total Actual Dollars to be Paid over 12 months =		$491,887
Actual monthly deposit =		$40,990

This funding formula, based on the principle that similar courses will be funded similarly and that teaching is connected with research, applies to all recognised tertiary education providers. Table 8.3 shows the 22 funding rates (funding levels) that exist in New Zealand. Since 1999, all student enrolments have been funded, with the exception of Medicine, Dentistry, Veterinary Science and Foreign-Going Nautical where Government maintains capped enrolments with a set limit on subsidised places. In addition, Tertiary Education Institutions receive a base grant of $1000 per EFTS enrolled up to a maximum of $250,000 per year. Tertiary education providers may also be paid Special Supplementary Grants for specific purposes (*e.g.* for educational services for tertiary students with disabilities or to stabilise fees charged to students).

Table 8.3: Funding rates per study category (in NZ$)

Tuition efts subsidy category (Funding Level)	non degree	undergrad degree	taught post-grad	research post-grad
A Arts; Social Sciences; Business; Accountancy; General, including Community Education; Law	5,045	5,215	6,745	12,345
B Science; Computing; Engineering (non degree); Agriculture (non-degree); Nursing; Trades; Architecture (non-degree); Fine Arts; Music	7,721	8,091	11,421	22,621
C Engineering (degree); Agriculture (degree); Architecture (degree); Audiology	9,282	9,752	13,682	27,382
G Dentistry[50]; Veterinary Science; Medicine		18,188	18,188	18,188
H Specialist Large Animal Science		15,219	19,149	32,849
I Teaching	7,190	7,360	8,890	14,490

Source: Ministry of Education (2000).

The government subsidy system operates on the basis of the number and type of credits (papers) a student is taking. A student taking two or more degrees necessarily receives a higher subsidy (over their period of study) because they will do more credits; they will also end up paying higher fees (unless they are fortunate enough to receive a scholarship). There is currently no limit to the number of (subsidised) degrees and courses students can take (assuming satisfactory academic progress); there is, however, a limit to the number of years for which the government will provide a grant to full-time students to cover living costs. Such grants are means-tested.

Payments are made to providers on a monthly basis. Information on EFTS consumption by students is provided to the Ministry three times a year electronically via the Single Data Return (SDR) and validated against the Prospectus qualifications database and the Ministry's Course Register for all providers. Funding for each four monthly period is:

- calculated on the actual EFTS consumption to date,
- plus an agreed forward forecast,
- plus or minus any funding correction for the previous four monthly payments based on actual enrolments.

Payments therefore closely follow actual enrolments. It is no longer possible to forward claim EFTS based tuition subsidies.

In order to protect the financial interest of the Crown, the Ministry now has a strengthened purchase monitoring function whereby ongoing financial viability of tertiary education providers and the correctness of the SDR returns are examined within a risk management framework.

With the exception of some specific bridging courses designed to improve access to qualifications for disadvantaged groups, intakes of students for qualifications subsidised through the EFTS funding formula are not restricted to any specific group of students other than through normal academic and non-academic entry criteria. In particular, EFTS subsidised qualifications are not restricted to employees of a particular company.

While the level of EFTS subsidy payable to a tertiary education provider is determined by student enrolments on courses, the actual payment of this subsidy is not tagged to any specific course. It is a *bulk fund* (lump sum) for the provision of tertiary education. Subject to the provisions of the Public Finance Act (1989) and the Education Act (1989), providers may spend this funding as they wish. Funding is designed to cover capital and infrastructural development as well as operational costs. The Ministry of Education does not provide additional development funding to tertiary education providers through the EFTS based funding system.

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[50] In addition to this, an add-on of NZ$11,084 per year 2 EFTS, and NZ$12,410 per years 3 to 5 EFTS is paid for undergraduate dental students.

The government of New Zealand is concerned with funding quality tertiary education and to protect the interests of students enrolled at tertiary education providers. Only programmes of study comprising quality assured courses, offered by quality assured providers, leading to the award of quality assured qualifications will be eligible for EFTS based tuition subsidies and student access to the student allowances and loan schemes. With the exception of some non-formal or community education programmes offered by tertiary education institutions, all subsidised courses must be components of programmes of study leading to quality assured qualifications.

The Ministry of Education also has a responsibility to ensure that EFTS tuition subsidies are only paid to financially viable providers. All tertiary education providers recognised for EFTS based funding and access to student allowances and loan schemes must meet reporting requirements specified by the Ministry of Education.

Quality assurance of courses and qualifications is the responsibility of the quality assurance agencies. The Ministry of Education's role is not to duplicate this, but to ensure that the appropriate quality assurances and accreditations are in place *before* approval for access to Government Assistance can be given. Students must not be enrolled in courses and qualifications prior to that approval being given.
Providers will be notified when qualifications are approved and all qualifications approved for either EFTS based tuition subsidies or student access to the student allowances and loan schemes are listed on the Ministry's Prospectus database. Similarly, during 2000 all quality assured courses have been entered on the Ministry of Education's Course Register, which must then be actively maintained by providers.

A key policy principle is that similar quality assured courses will receive similar levels of tuition subsidy, irrespective of how or where they are taught. Differential funding based on whether the course is delivered, by a Tertiary Education Institution or a Private Training Establishment, whether it is delivered extramurally or on site, has been removed. Similarly, no separate approvals are required for part-time delivery of approved full-time courses. The prior tertiary education experience of the student is also no longer a factor in determining funding within the same course (Study Right policy having been phased out for 2001).

The Ministry of Education's responsibility is to ensure that the EFTS value associated with each quality assured qualification is appropriate, and that the EFTS factors and classifications of courses comprising the programme of study leading to the award of that qualification are correct. There are no restrictions on the consumption of EFTS by individual students enrolled in an approved qualification.

The Ministry of Education is also responsible for approving the eligibility of qualifications and courses for student access to the student allowances and loan schemes. With the transfer of the administration of these schemes to *Work and Income New Zealand*, it is no longer necessary for the Academic Boards of TEIs to specifically approve qualifications for eligibility for loans and allowances. The Ministry of Education continues to be responsible for overall strategic policy associated with the student allowances and loan schemes and operational policy concerning the determination of eligibility of qualifications and courses for student access to these schemes.

8.2.2 Developments

The Ministry is working towards using the credit value of the qualification as the basis of setting EFTS values. Although this has been adopted as the most appropriate proxy for teaching inputs from the point of view of both transparency and minimising compliance costs, this is sometimes problematic in that credit values are not uniform across the sector. Accordingly, credit values assigned to qualifications are checked against both student learning hours and teaching weeks as part of the approval process.

The Tertiary Education Advisory Commission (TEAC) is currently examining a wide range of possible changes to the current funding systems across the tertiary sector (including higher ed., industry training, adult and community, etc.). It has not yet reached any final policy positions on any of the key issues, but must do so over the next few months. Some significant changes will be recommended; whether the government ultimately accepts any or all of these remains to be seen.

The changes that the TEAC will recommend, include:

a. a more predictable funding regime for the EFTS-based funding system, perhaps via a rolling triennium;
b. the retention of a formula driven funding regime for tuition, but with significant changes to the current cost categories;

c. retaining a regime under which some research funds follow degree-based students (via the current research 'top-up' policy), but moving some of the existing funding into a separate pool for allocation via a performance-based formula: the key debate at present is whether to allocate this pool via an indicator system (as in Australia, South Africa and Israel etc.) or via a peer review process (as in the UK and Hong Kong);
d. the introduction of a separate funding stream to fund centres of research excellence within the tertiary sector (this has already been agreed by the government);
e. a significant boost to the overall level of tuition and research subsidies, with some kind of indexation; and
f. the possible establishment of a separate infrastructure fund for expensive capital items.

The feeling is that a performance-based funding system for tuition costs will not be recommended.

8.3 Student support and tuition fees

Government assistance is funding payable for domestic students enrolled in approved qualifications at TEPs[51] either in the form of tuition subsidies, or for student access to the student allowances and loan schemes, or both. Tuition subsidies will be delivered through the EFTS based funding formula.

8.3.1 Student allowances and Loan Schemes

Work and Income New Zealand is responsible for the administration of student allowances and loan schemes, and on deciding the eligibility of individual students. Below is a general overview of the student allowances and loan scheme.

To receive a student allowance or loan a student must be enrolled at an approved tertiary provider (as specified in the Education Act 1989) which includes enrolments at a(n):

- college of education, or
- polytechnic, or

[51] TEP=Tertiary Education Provider. This collective term covers all tertiary education providers including universities, polytechnics, colleges of education and other HEIs approved for EFTS-based tuition subsidies, and/or student access to the student allowances and loan schemes for their qualifications.

- university, or
- wananga, or
- registered private training establishment, or an
- 'other' tertiary education provider.

Eligible students are entitled to receive access to the student allowances scheme for a maximum of 200 weeks. Access to the student loan scheme is open provided a student continues to meet the criteria for full-time or for part-time full year study.

Students meeting the criteria for part-time access to the student loan scheme are eligible for the fees and course related costs components only and not the living costs component which full-time students are eligible to receive.

Table 8.4: Number of student loan clients and average amount borrowed (in NZ$), 1992-1997

	Number of students	Average amount borrowed
1992	44202	3,628
1993	68411	3,979
1994	79338	4,309
1995	89817	4,432
1996	95411	4,649
1997	105038	5,494
1998	114387	5,714
1999	115142	4,945

Source: Ministry of Education (2000).

Table 8.5: Value (in NZ$) of outstanding loan balances in percentages

Range of balances	1995	1997	1998	1999
<6,000	64.0	47.5	43.0	38.4
6,000-10,000	25.5	22.0	20.5	19.5
10,000-15,000	10.9	12.4	14.3	15.7
15,000-20,000	6.5	8.7	9.2	9.2
20,000-25,000	2.5	4.1	5.0	6.3
25,000-30,000	0.5	2.9	3.7	4.0
30,000-35,000	0.1	1.2	1.8	2.8
>35,000	0.0	1.2	2.5	4.2
Total	100	100	100	100

Source: Ministry of Education (2000).

8.3.2 Tuition fees

In 1990 a student contribution was introduced. Main reason for that was the strong increase in enrolment and the government opinion that higher education graduates clearly benefit individually from a higher education degree. This contribution grew from 3% of the average teachingcosts in 1990 to almost 25% in 1999. Institutions are free to determine the level of the student contributions. On average students pay around NZ$2,800 (€1345) annually. Foreign students pay a full cost fee. This may vary from NZ$10,000 (€4805) to NZ$18,500 (€8889) for undergraduate programmes.

Table 8.6: Average fees for full-time, full-year students by type of provider (in NZ$)

Type of provider	1992	1994	1996	1998	1999
University	1,300	2,100	2,689	3,331	3,661
Polytechnic	1,300	1,900	2,529	3,127	3,179
College of educ.	1,400	1,900	2,073	2,448	2,393
Wananga	1,400	900	1,431	2,360	2,724
PTE[1]	3,900	3,900	4,081	5,473	5,343
Average fee	1,300	2,000	2,631	3,319	3,507

[1] PTE=Private Training Establishment.
Source: Ministry of Education (2000)..

Since students pay for a substantial part of the teachingcosts, higher education institutions have become more dependent of enrolment (see tables 8.1, 8.2 and 8.7)

Table 8.7: Breakdown of resources of higher education institutions by source, in %

Year	Government funding	Fees	Other
1992	76.4	11.2	12.4
1999	51.1	25.8	23.1

Source: Ministry of Education (2000)

9 Sweden

9.1 Introduction

In relation to other countries, higher education in Sweden has a more relaxed funding situation and has escaped the financial turmoil which other systems experienced during the eighties. A 1996 report of the OECD noted that the Swedish government seems to be prepared to increase government funding in order to expand participation in tertiary education. The same report also stated that there seems to be little pressure on institutions of higher education to raise money for themselves (OECD, 1996).[52] The overall development of resources in Swedish higher education therefore cannot be described as one of fiscal stress.

In the current decentralised funding scheme, the government has less direct influence over the budgetary decisions than it did formerly. The main ways in which the government has an influence over the financing of individual higher education institutes is through the funding of research and through the system of funding according to the number of active students. The government sets research priorities and controls the amount of R&D funding which is given to the faculties. The government also exerts an influence over the institutions by funding them according to the numbers of active students (see below for more details), and hopes in this way to be able to encourage the institutions to improve the quality of the programmes offered (Öhrström, 1994). In addition the government is involved in decisions concerning new buildings. The government is opposed to the founding of specialised research institutes in part because it does not wish to become involved with funding decisions at the faculty level: The annual budgets of specialised institutes would have to be decided by the government (Svanfeldt, 1994).

9.2 Institutional finance

Until the 1975-77 reform, the system of higher education was collegial, with the administrative and political power mostly in the hands of full professors. Swedish universities and professional schools with permanent research funding were run by the tenured staff from which the governing

board and its chair, the rector, were drawn. Academics recruited the decision-making boards in accordance with professorial criteria.

The major institutional reforms in the seventies led to extensive decentralisation and the introduction of external participation in the decision-making bodies. The 1975-77 higher education reforms decentralised several major functions including the allocation of money which was granted in broadly specified budgetary appropriations. These reforms also resulted in teaching and research (together with postgraduate studies) being separately funded. The rationale for this division was that the government wanted separate policies within these two areas (Svanfeldt, 1994).

Education policy since the middle of the 1980's has continued to emphasise decentralisation, and much of the decision-making power has been transferred from the national to the local level. The reforms of 1987 and 1988 decentralised much of the financial decision-making in the higher education sector. In the past the funding system was highly centralised, and budgets specified particular items and areas. After the reforms, the funding was changed to broad programme budgeting, and since the late 1980's the institutions are free to decide for themselves how to best use the money they are granted. (Svanfeldt, 1994).

Since 1993 higher education funding has been awarded on the basis of three-year budgets. In between a yearly appropriation is decided upon by means of standard operating procedures. The formal development of the higher education budgetary system reflects the new emphasis on decentralisation and evaluation. The institutions are free to decide how to use the allocated funds, but they must fulfil the long-term goals specified in the regulations. The institutions can transfer unused government grants to the following year, but they also have to reimburse any deficit. As mentioned above, teaching and research are budgeted separately (Högskoleverket, 1996a, and Swedish Ministry of Education and Science, 1993).

9.2.1 Funding for teaching activities

Since 1993 the undergraduate teaching budgets of universities and university colleges have been awarded on the basis of the number of students and the annual performance equivalent. The

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[52] However, during the last few years the Swedish government more and more stresses the importance of external funding.

government specifies a maximum amount that the government may award. The teaching grant is calculated on the basis of two factors. The first factor concerns the number of students registered. The size of this grant therefore varies from institution to institution. The second grant is based on the number of study credits achieved by the students (and therefore corresponds to the number of active students at a particular institution). A third type of grant aimed at encouraging superior quality was proposed by the government, but was never implemented. This grant was to be called the Quality Premium, and the proposal was for it to cover approximately 5% of the budget (Högskoleverket, 1996a, and Swedish Ministry of Education and Science, 1993).

The funding of teaching (and research) is based on 3-year contracts between HEIs and the ministry of Education. These contracts are divided into teaching and research portions. The teaching portion of a 3-year period stipulates the minimum numbers of students and credit points in particular fields for that period. In general the government directs on the basis of objectives calculated in terms of full-time equivalents among the institutions of higher education. The objectives are divided into two parts, one concerning the amount of students (full time equivalents) and one concerning the results achieved (annual performance equivalents). The total grants available for teaching activities can not exceed the maximum funding calculated in the annual budget and decided by the parliament. The universities and university colleges will therefore not benefit by an over-production of students. However it is possible to save an over-production up to ten (10) percent of the total grant for a future use. In this way it is easier for the universities and university colleges to estimate an optimal long-term inflow of students.

The teaching grant is calculated on the basis of the number of students and on student activity, but differences between the cost of teaching various subjects is also taken into account in the funding formula. There are tariffs which correspond to six clusters of disciplines: 1) humanities, theology, law, and social sciences, 2) natural sciences, engineering, pharmacy, and health studies, 3) dentistry, 4) medicine, 5) education, and 6) miscellaneous.[53] The student tariff consists of an overhead tariff and an activity (i.e. direct teaching costs) tariff .

[53] These funding categories have been completed with seven new categories, all tariffs for fine arts.

Table 9.1: Tariffs per fte student and per 40 study credits (in SEK[54], 1994/5 and 2000/2001)

Area	student tariff 1994/95	Performance tariff 1994/95	Student tariff 2000/2001	Performance tariff 2000/2001
Humanities, theology, law, social sciences	14,024	14,349	13,805	14,453
Natural sciences, engineering, pharmacy, health studies	38,036	33,850	37,286	34,096
Dentistry	34,743	42,035	33,858	42,340
Medicine	46,840	59,314	45,551	59,742
Education*	27,362	33,547	26,675	33,790
Miscellaneous	31,939	26,777	31,323	26,971

* Excluding the practical part of teacher training.
Source: Swedish Ministry of Education and Science.

The tariffs were determined on the basis of a special investigation into the cost of the basic higher education. This investigation determined the cost of teaching, services and overhead in the cluster of law and humanities as well as in some social science subjects. Table 9.1 presents the tariffs (*ersättningsbelopp*) for the academic years 1994/95 and 2000/2001. Together, the student tariff and the performance tariff generate the yearly per capita allocation for each full time undergraduate student (in each of six categories) that has succeeded in collecting 40 credit points. Since 1995 the student tariffs have included a compensation for capital costs (including rents for the university buildings).

The annual teaching budget T for institution i in year t is calculated by applying the following formula (Koelman, Vossensteyn and Jongbloed, 1998). (which, for the sake of clarity, disregards adjustments due to compensation for price inflation):

[54] 1 Swedish Crown = NLG 0.24011= €0.11 (March 2001).

$$T_{i,t} = (S_{i,1,t}*TS_{1,t} + C_{i,1,t}/40*TC_{1,t}) + (S_{i,2,t}*TS_{2,t} + C_{i,2,t}/40*TC_{2,t}) + ... + (S_{i,6,t}*TS_{6,t} + C_{i,6,t}/40*TC_{6,t})$$

where:

$T_{1,t}$ teaching budget for institution i in year t

$S_{i,j,t}$ number of full time equivalent students in institution i enrolled in programmes belonging to cluster j (j=1,...,6) in year t

$TS_{j,t}$ tariff per full time student (overhead plus direct teaching costs) in programmes belonging to cluster j (j=1,...,6) in year t

$C_{i,j,t}$ number of credits accumulated in institution i in subjects belonging to cluster j (j = 1,...,6) during year t

$TC_{j,t}$ tariff per annual performance equivalent in subjects belonging to cluster j (j = 1,...,6) during year t

Recent developments

In September 2000 an official report of the Swedish Government, *Högskolans styrning* SOU 2000:82, was published. The authors' main assignment was to evaluate the management of the higher education. One of the results was that the system needed a somewhat stronger focus on the outcome. An example given was that the funding system could include an examination-bonus, another example was to re-weight the tariffs in order to strengthen the output-side. The government has not yet drafted the comments on the official report and therefore we cannot further comment the discussion. The government will prepare a proposal to the parliament later this year that includes some of these questions will be.

9.3 Student support and tuition fees

9.3.1 Student support

9.3.1.1 Undergraduate student support

It is a fundamental principle of Swedish higher education is that all students who need help to finance their studies should receive assistance from the central government. The provisions governing study assistance are codified in the Study Assistance Act. From the total costs of higher education (41.7 billion SEK in 1999), about 7.7 billion SEK was spent on student support.

Study assistance consists of a non-repayable grant plus a larger repayable loan (about 30% grant and 70% loan). In 2000 the maximum amounts of the grants and loans were SEK 1984 and SEK 5153 per month respectively. These are paid for nine months per academic year. Students continue to qualify for government grants and loans as long as they complete their coursework within the required time limit. In general, a student may receive study assistance for a maximum of twelve terms (six years).

The method of repaying the loans is a matter of controversy. A rate of interest equals 70% of the state deposit rate (3.2% in 2000). Repayment of the study loan begins six months after the final receipt of study assistance. Instalments are income-based, generally at a rate of 4% of annual income. As a consequence, for many students repayment of these debts may spread over several decades. It is not unusual for Swedes to be paying back their student loans into their fifties.

Recent developments

The student support system will be changed at July 1st 2001. The major change is that the basic level grant has been raised from 27.8% of the total allowance in the old system to 34.5% in the new system. In certain circumstances students aged 25 or older may be awarded an additional loan of 1600 SEK per months. The additional loan only will be awarded to students in full-time studies for a maximum period of 120 (study) weeks (e.g. 3 years).

9.3.2 Tuition fees

In Sweden there is no tradition of charging tuition fees, and at the present time there is no policy aimed at introducing fees.

10 The Netherlands

10.1 Introduction [55]

The Dutch higher education system is a binary system. On the one hand there are universities, providing academic teaching, research and community services. The teaching programmes last four to five years and lead to a first degree (*doctorandus, ingenieur*, or *meester*). The other sector are the *hogescholen*, colleges providing professional education. The programmes last four years, including a period of practical work.

The income of universities and *hogescholen* derives from three so-called flows of funds. Apart from these, there are tuition fees. The first flow of funds includes the basic block grants allocated for teaching, research and related activities. For *hogescholen* the block grant only covers teaching tasks. The first flow of funds also contains a number of specific (targeted) allocations, the most important one being the compensation for unemployment benefits which are paid by the institutions themselves to laid-off staff members. If we exclude the grants paid to academic hospitals (which co-operate closely to universities), the first flow of funds to universities for 1998 (in Dutch guilders: Dfl) is Dfl 4,334 million, with the block grant accounting for 91% of this amount. For *hogescholen* the corresponding amount is Dfl 2,685 million (95% of this is block grant).
The first flow of funds (i.e. the core funds) is supplied by the Ministry of Education, Science and Culture. Agricultural institutions (one university and six *hogescholen*) receive their grant from the Ministry of Agriculture. The way the block grant is calculated and built up is described in the next section. Although difficult to determine, we estimate that 36% of university core funds are for covering the cost of teaching and 64% are for research activities. In practice, though, universities are allowed to determine their own distribution of funds over teaching and research. They can also make their own distribution over faculties, departments and institutes.

The second flow of funds are allocations for research allocated through the Dutch research council NWO (Netherlands Research Organisation). This research council pays salaries of researchers (and support staff) working either in NWO-institutions (40%) or in universities (60%). It also contributes partly to other costs (mainly investments), however the larger part of material and overhead costs are to be paid by the receiving university. NWO acts as an intermediary in granting

[55] This chapter is partly based on Vossensteyn *et al.* (1998).

funds for separate research proposals submitted by (teams of) individual researchers that seek funding for their projects. Projects are funded on a competitive basis. Research council funds represent about Dfl 255 million of university income.

The third flow of funds concerns contract research and contract teaching carried out for government, non-profit organisations, private companies, charitable boards, and the European Community. For universities this supplementary source of income has been growing fast since the early 1980's. It now represents about 15% of university income for teaching and research (that is: not counting income from other services provided by universities). For the *hogescholen* it is difficult to obtain figures for income from contract work. Surveys reveal that it nowadays lies in the neighbourhood of 8% of their income.

For all modes of attendance a tuition fee is required, which is equal for *hogescholen* and university students. For full-time students the rate is Dfl 2,575 in the academic year 1997/98. Overlooking the income from recurrent funds to universities and *hogescholen* (excluding academic hospitals, interest, and other revenues from activities not related to research or teaching) the following shares can be calculated:

Table 10.1: Sources of funds of universities and *hogescholen*

Source of funds	Universities	*hogescholen*
Block grant and other core funds	73%	74%
Tuition fees	7%	18%
Research council grants	5%	-
Contract teaching, contract research	15%	8%
Total	100%	100%

For universities' and *hogescholen* capital costs the government also has a budget available. From 1994 (*hogescholen*), respectively 1995 (universities) on this budget is integrated into the recurrent (block) grant. *Hogescholen* and universities nowadays own their buildings and land. The *hogescholen* had to `buy' their property from the government (through loan financing) and from 1994 on receive a part of their block grant (i.e. per student) funding as a compensation for capital costs. Universities received their estate property from the government at zero cost. To cover all maintenance and investment costs from 1995 on they have to rely on their block grant (lump sum), which was raised in 1995 through the inclusion of the university investment budget (Dfl 170 million).

10.2 Institutional finance

10.2.1 Funding of universities

In a Higher Education Policy Paper (called HOOP 1998), the Dutch government expressed in 1997 plans to strengthen the performance element in the funding system, at least as far as the teaching component (including the so-called interweaveness part) is concerned. The idea was that universities will receive funds for teaching on the basis of:

- the number of diplomas produced by universities;
- the number of first-year students (freshmen) enrolled in universities;
- a fixed amount per university, independent of enrolments or diploma numbers;

This idea was accepted by the Dutch parliament leading to the introduction in 2000 of a new funding model called Prestatie BekostigingsModel (PBM). 50% of the budget was based on achievement, the first item in the list. Achievement is measured in terms of diplomas, i.e. end-of-first-year degrees ('propedeuse' in Dutch) and Master's degrees (final examination). A moving average will be used for measuring the number of degrees. On the basis of the first year enrolments, (only) 13% of the teaching budget is allocated. The underlying rationale for this component is that students are believed to base their choice of university on the quality of the programs offered by the university. However, this reasoning may not be valid in a non-transparent higher education market and students may use other selection criteria. The third component in the above list is a constant allocation per university, representing 37% of the total teaching budget (in 2000). This element is to provide stability in funding for the universities.

In PBM the following tariffs for teaching are used:

Diploma (arts, humanities, law, social sciences, and languages):	Dfl 28,000;
Diploma (science, engineering, agriculture):	Dfl 45,000;
Diploma (medical):	Dfl 85,000;
Freshman (arts, humanities, law, social sciences, and languages):	Dfl 5,000;
Freshman (science, engineering, agriculture, and medical):	Dfl 8,000.

Also included in PBM is the government's wish to steer university research more into directions determined by the needs of society. In the above mentioned policy document (1997) it was

expressed that priorities identified in society should have consequences for the research areas covered by universities. However, this plan is very controversial, not just because of the question how "society relevance" criteria can be made operational, but also because of the consequences in terms of reallocations between universities and the ensuing unemployment benefits.

10.2.1.1 Funding of hogescholen

For the hogescholen, almost the entire teaching allocation is formula-based. There are no floors in the allocation, except for special arrangements taken for the funding of art schools and a few teacher training institutions. It leads to a lump sum.
For the funding of hogescholen the following basic formula generates the amount of funds allocated for teaching:

amount = funding tariff x dynamic demand factor x enrolment

There are two funding tariffs for full-time students, one for programmes with a strong practical character (Dfl 8,790 in 1995) and one for programmes with a social science (so-called gamma) character (Dfl 6,900 in 1995). Previously there were six, so-called profiles. Still, there are some special arrangements for students in performing arts, music, theatre and teacher training. For part-time students, 75 per cent of the rates apply. Should tuition fees be changed, the level of the funding rates also is adjusted.

The funding rates are not applied to the number of registered students, but to an estimate of the teaching load (`student demand'). This teaching load is in turn dependent on enrolment and a so-called dynamic demand factor. The formula for this factor is as follows:

dynamic demand factor = [DG x 4.5 + DO x 1.35] / (TG + TD)

where:

DG the number of HBO-degrees awarded (during previous year)
DO the number of students that have dropped-out (during previous year)
4.5 the normative funding period for HBO-graduates (4.5 years)
1.35 the normative funding period for HBO-drop-outs (1.35 years)
TG total period (in years), during which graduates have been registered before graduation
TD total period (in years), during which drop-outs have been registered

The dynamic demand factor can be interpreted as the ratio of the normative funding period and the actual registration period for graduates and drop-outs. In case graduates or drop-outs take more time before leaving the hogeschool, the operation of this factor implies that the hogeschool receives less funding. In case an institution would be able to bring down the time to graduate or the time to drop out, this will only affect funding if the graduation (or success) rate rises simultaneously. This is due to the fact that total enrolment also decreases along with shorter periods of stay. A hogeschool thus has two options to raise its funding amount:

1. through a permanent rise in numerical success rates
2. through a rise in student intake.

However, both options bring along larger costs for the institution. In all case, the funding formula intends to stress performance, especially in terms of graduation rates.

Recent developments in the funding of hogescholen

In 2000 the Dutch ministry of Education, Science and Culture developed a plan to change drastically the funding system of *hogescholen.* The intention is in the first place to create a better fine-tuning between funding and the existing variety in learning paths and learning trajectories. More flexibility is needed. A second goal of the ministry is to create a clear relation between the funding of the ministry and the performance of the HEIs.

The most important elements of the proposed, completely output-oriented, funding system are:

- funding of single credit points; (only really earned credit points are financed)
- funding of a maximum of 42 credit points per student per year;
- a bonus for new entrants;
- a bonus for a diploma;
- two tariffs (high and low) for credit points and diplomas;
- credit points earned by students are only funded if students are registered and have paid their tuition fee

If the Dutch parliament will accept the plan, the new funding system will be implemented in 2005.

10.3 Student support and tuition fees

10.3.1 Student support[56]

In 1986, a system of family allowances, tax facilities and means-tested grants was replaced by one system of direct financial student support through the introduction of the Student Finance Act. Although this system has gone through a large number of reforms, it still consists of the following three basic provisions:

- All regular full-time students at funded and designated institutions receive a basic grant for the nominal duration of a higher education program (4 or 5 years). As of the academic year 1996/97, the basic grant is called the "performance-related grant" because students receive it initially as a loan. If students show satisfactory academic performance, the loan becomes a grant.[57] The amount of the basic grant depends on the housing conditions of students. As of January 2001, the basic grant amounts to Dfl.147 (€67) per month for students who live with their parents and Dfl.454 (€206) for students who live on their own. Students are free to take out less than the maximum grant to reduce the debt in case they do not meet the performance requirement;
- Students can apply for a supplementary grant when parental income is below some threshold (means-tested). This grant can only be received for the nominal duration of study (4 or 5 years). The supplementary grant is also subject to the performance requirements applying to the basic grant. Depending on parental income, the maximum amount of the supplementary grant is Dfl.431 (€196) per month for students who live with their parents and Dfl.467 (€212) for students who live on their own. Students are eligible for the maximum grant when parental income is below approximately Dfl.52,000 (€23,597);[58]
- Finally, students can voluntarily take up an interest-bearing student loan of at most Dfl.504 (€229) per month. The loans are not means-tested.[59]

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[56] This paragraph is based on Canton and Jongbloed (2001).

[57] More specifically, students must meet the following performance requirements. In the first year, students must pass 50% of the exams, that is 21 out of 42 study points. If they meet this requirement, all initial loans become a grant. The initial loans students receive in the second, third, and fourth (and in some cases fifth) years, can be turned into a grant if they complete their study within ten years. Note that voluntary loans (*cf.* third provision) cannot be transferred into a gift

[58] Modal income is approximately Dfl.56,000 (€25,412) in 2000

[59] In case parent are not willing to contribute to the costs of study, students are allowed to take an additional loan

Apart from the basic provisions, students are allowed to earn an additional annual net income of at most Dfl.19,500 (€8,849). Student support is reduced when they earn more. This arrangement also comprises a subsidy-element, as other groups receiving financial support from the government are not allowed to earn additional income.
Finally, students eligible for student support also receive a public transport pass, entitling students to free public transport either on working days or in the weekends (the days public transport is not for free, the transport pass entitles them to a 40% discount on all fares).
In a worst-case scenario, students could end up with a debt of approximately Dfl.90,000 (€40,840). After a grace period of 2 years, debts must be repaid within a period of 15 years with a minimum monthly installment of Dfl.100. If graduates have difficulties in repaying their monthly installments, they can ask for an annual means test. Based on that, monthly repayments can be reduced (even to zero). Any remaining debt after 15 years is acquitted. Loans are interest-bearing. As of January 2001, the interest rate is 5.18%.

10.3.2 Tuition fees[60]

Tuition fees for regular full-time students are centrally determined by the Minister of Education and are uniform for all subjects in HBO and WO (in Dutch: *wettelijk collegegeld*). The tariff for regular students amounts to Dfl.2,874 (€1,304) in 2000/01. Table 1.3 shows that tuition fees have increased in recent years. The last two rows in the table show the tuition fee ratio, *i.e.* tuition fees as a percentage of the total direct cost of a higher education program. Relative private contributions have been fairly stable around 19% of average direct costs in the WO-sector, whereas the tuition fee ratio has gradually increased for HBO-programs.
From September 1996 on, tuition fees for part-time students, students who have not completed their studies within the nominal length of study plus 2 years (6 or 7 years), and external candidates can be set by the institutes themselves (in Dutch: *instellingscollegegeld*). Most universities make some use of the room for tuition fee differentiation. However, as shown by Jongbloed and Koelman (1999), HBO-institutions hardly use the possibility to set tuition fees beyond the minimum rates set by the government.

[60] This paragraph is based on Canton and Jongbloed (2001).

Table 10.2: Tuition fees for regular full-time students

	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01
Nominal fee (Dfl.)	2,150	2,250	2,400	2,575	2,750	2,816	2,874
Real fee (Dfl.)	2,150	2,217	2,333	2,452	2,567	2,572	2,561
Tuition fee ratio, WO	19%	18%	18%	19%	19%	19%	
HBO	18%	19%	20%	21%	22%	22%	

Note: The final two rows display tuition prices as a percentage of the average direct educational costs of a training program.
Source: The CPI is set at 1 in 1994; inflation data are from CPB (1998, 2000); Tuition fees and average direct educational costs are from OCenW (2000, 2001) and the homepage of OCenW (www.minocw.nl)

Students do not have to pay any other education-related charges, such as library fees, student union fees, laboratory fees, computer access fees etc. Administration and examination fees are rare. If a student is enrolled in a university or HBO-institution he may use the facilities of the institution. As far as computer services are concerned, students may get an account number and an annual budget. If they exceed their budget, they have to pay for the computer services. Students are not obliged to become a student union member. If they join a student union, they have to pay a fee. This is the same as for joining any sports club, cultural or political organisation.

11 Tennessee (and the United States of America in general)

11.1 Introduction

11.1.1 Higher education in the USA[61]

Most of the public funds for higher education is provided by the states, although the federal authority provides substantial contributions through student support schemes and research-funds. Providing a description of *the* higher education system of the United States of America is difficult to achieve. Due to the fact that the prime responsibilities regarding higher education are at the state level, there is not one system but over 50 higher education systems. Each of them has its own structure, funding and political, economical and social context.
This is the reason why this chapter focuses on the higher system of one state: the higher education system in Tennessee. However, to have a better frame of reference for that description, we first present some information on the national level, as it published by various national agencies like NCES.

There are over 4000 higher education institutions, hosting more than 14 million students. There is a large variety in providers of higher education programmes and in programmes. The scope of providers of higher education ranges from universities and four-year colleges to 2-year community colleges. Table 11.1 provides an overview of some systems characteristics.
The quality of the programmes varies significantly between the institutions (both between the types of higher education institutions and within the types of institutions). In addition, there is also a wide variety in the level of tuition fees. Students at Ivy League universities pay many times the amount students at 2-year colleges have to pay. Based on the variety in quality and price, the American higher education system is assumed to be much more market-oriented than the Western-European systems.

Access

In general, institutions decide on the selection of students on entrance themselves. At public institutions however, the public authority (state or local community) has a role in determining the procedures and criteria. In some states this role is only marginal whereas in other states public

[61] For this chapter, the information from three CHEPS-reports is used extensively: Jongbloed and Koelman (1999), Jongbloed and Vossensteyn (1999), and Jongbloed *et al.* (1999).

authorities steer on a detailed level. The major criterion for admission to bachelor programmes at 4 year colleges are the *high school* scores of the applicants (in around 20 states) and/ or the score an a *Scholastic Aptitude Test*, administered by the higher education institution.

11.1.2 Higher education in Tennessee

The structure and administration of the public higher education system in Tennessee are very stable. In 1967 the *Tennessee Higher Education Co-ordinating Board* (THEC) was founded. THEC is a co-ordinating body with responsibilities regarding planning, control and advice regarding institutional budgets and programme-co-ordination (approval of new programmes). The administrative authority is located in two public boards: the *Board of Trustees of the University of Tennessee, responsible for five senior institutions and the Board of Regents of the State University* and *Community College System*, responsible for 20 4-year and 2-year campuses and 26 *non-degree-granting vocational-technical schools*. This administrative structure is in existence over more than 20 years. Both boards administer about half of the state higher education budget.

Some general characteristics of the Tennessee higher education system are presented in table 11.1 and related to the general USA-picture.

Table 11.1: Characteristics of higher education in the USA and Tennessee, fall 1997

	USA		Tennessee		Tennessee as a percentage of USA	
	institutions	enrolment	institutions	enrolment	institutions	enrolment
public 4-year	615	5835433	10	116479	1.6%	2.0%
public 2-year	1092	5360686	14	77037	1.3%	1.4%
private 4-year non-profit	1536	3061332	42	51629	2.7%	1.7%
private 4-year for-profit	169		2		1.2%	
private 2-year non-profit	184	244883	3	4660	1.6%	1.9%
private 2-year for-profit	500		13		2.6%	
total	4096	14502334	84	249805	2.1%	1.7%
undergraduate		12450587		216836		1.7%
graduate		1753489		27378		1.6%
professional		298258		5591		1.9%
population		272690800		5483500		2.0%

Source: Chronicle 2000

Tennessee (USA)

The Tennessee higher education system does not deviate significantly from the USA-picture. There are relatively many private 4-year non-profit institutions and private 2-year for-profit institutions and relatively few public 2-year institutions and private 4-year for-profit institutions.

11.2 Institutional finance

11.2.1 The United States

There are three main components in the funding of American higher education:

1. public funding of teaching and research activities (state and federal)
2. private funding
3. funding through student-aid

Federal funding of institutional activities is mainly focused on research and development activities. The funding of these activities is not related to teaching activities. A detailed description of the fundingmechanism for research and development activities is therefore beyond the scope of this report. The funding of teaching activities is mainly in the hands of the state authorities. The state autonomy regarding the funding of teaching activities has lead to a large diversity in funding mechanisms in the USA.

Till the 1980s most funding of teaching activities was based on student-driven formulas. During the 1980s, this linear relation between enrolment and funding was heavily criticised. Such a system would not do justice to the growing diversity of the studentpopulation nor would it provide any incentives for efficient use of resources or an improvement of quality of teaching. Many states adapted their funding mechanism to accommodate those criticisms. The most common adaptations were the reduction of the student driven part of the funding formula, replacement of the linear relation by a marginal relation, and the introduction of performance components. The freedom institutions have to spend the public resources varies between states. In some states, institutions may spend the funds as they like (lump sum) whereas in other states that freedom is very limited because of the line-itemisation of the state budgets.

In the late 1980s and the 1990s, the call for accountability regarding the performance of higher education institutions has grown. This has lead in some states to the use of performance contracts. States nowadays review the academic programmes regularly, especially regarding their productivity.

The second flow of funds are the private contributions. These comprise revenues from tuition and fees, endowments and contract-activities. Tuition fees are discussed in one of the sections below. Private institutions depend for more than half of their revenues on private contributions.

The third flow of funds is the funds for student aid. These funds comprise grants, scholarships, work-study programmes and loans. The main financial actor in this respect is the federal government: 75% of all funds for undergraduate student aid are provided by federal government. 20% is provided by private organisations and 5% by states. Around 20% of all students receive a grant and 20% receive a scholarship. 26% of the students have a loan, whereas 5% get a work study compensation. Students may receive funds from more than one type of student aid (NCES 2000; 348)

Table 11.2: Revenues of higher education institutions in the USA, by type of institution, 1995-96, (in %)

	Public, 4-year institutions	Private, 4-year institutions
Federal authorities[1]	12,3	14,2
State	34,2	1,8
tuition and fees	18,3	41,4
gifts, grants & contracts	4,8	9,4
endowment income	0,7	5,4
sales & services	25,7	21,6
Local authorities	0,8	0,7
Other	3,3	5,4
Total	100,0	100,0

Source:U.S. Department of Education: *The Digest of Education Statistics* (1998).

[1] excluding student aid

[2] including university hospitals (public institutions: 12,2% private institutions: 8,9%).

11.2.2 Institutional finance in Tennessee

In 2000, the General Assembly increased overall appropriations to higher education by $57.5 million or 5.9 percent. In addition, lawmakers approved $10 million to replace outdated equipment at state's health-related institutions, and $7.5 million for research at the UTS.
The 2000 budget also had less positive news for the public institutions. The lawmakers directed the state's colleges to raise at least $21 million dollar in tuition and fees. Part of this money has to be used to pay for the 3.5 percent salary increase for higher education employees. This raise

was ordered by the General Assembly, which provided only $27 million of the $38 million needed to pay for the increase. (Chronicle 2000;108)
In addition to the state appropriations (funding formula described below) there are also appropriations of local government but the amounts provided are negligible (0.1% in 1996). NCES 2000; 366-367)

11.2.2.1 The funding formula

Tennessee law requires the Tennessee Higher Education Commission (THEC) "To develop policies and formulae or guidelines for the fair and equitable distribution and use of public funds among the State's institutions of higher learning, taking into account enrolment projections, and recognising institutional differences as well as similarities in function, services, academic programs and levels of instruction."

The appropriations formula applies to the six universities and fourteen two-year colleges/institutes in the TBR System and the three universities in the UT System. (Note: 26 Technology Centers; 2 Special Purpose Institutes; and, Veterinary Medicine, Institute for Public Service and Agricultural Extention are funded outside the formula.)

The current formula relates to unrestricted education and general monies. Restricted funds such as federal research grants or other gifts and grants are not included.

In two significant ways the appropriations formula utilises information from ten "peer institutions" of each of the Tennessee institutions. UTK and UOM each have separate peer groups, although they do have one in common. All of the regional universities share a common "core" of seven peers, with each university having three unique peers. The community colleges share the same group of peer institutions.

The components of the formula are:

1. Instruction and academic support

Institutional expenditures are concentrated in the instruction and academic support categories (58% in 1999/00). The Instruction formula uses faculty salaries and student/faculty ratios at comparable institutions (for the student/faculty ratio of 2001-02 see table 11.3). The funding calculation divides the projected student credit hour production by student/faculty ratios to

determine the number of instructional personnel required. This number is multiplied by the average salary factor of peer institutions. Adjustments are made for graduate assistants, equipment, clerical, and supply requirements, and to recognise fluctuations.
Libraries are funded at the Fall FTE (funding base enrolment) multiplied by a rate which is the average of the institution's ten peers library expenditures. Peer amounts are based on IPEDS data. Other Academic Support is calculated as a percent of the "Total Instruction" amount. The calculation used differs by type of institution:

UTK, UM	3.0% of Total Instruction
Regionals	1.7% of Total Instruction
Two-Years	0.8% of Total Instruction

2. Maintenance & Operation of Physical Plant

In 1999/00 this category comprised 8% of total institutional expenditure. The basic maintenance is determined by multiplying a rate per square foot ($2.62 in 2001) times the gross square footage of the institution. Square footage includes only "educational and general" space; this excludes space used by auxiliary enterprises. The rate is adjusted periodically to reflect increased operating costs. Additional funding ($0.28 per square foot) is provided for space 20 years and older that has not been renovated during the past 20 years. This formula component also contains funding for utilities and rental space.

3. Institutional Support

Expenditures for institutional support are 10% of total expenditures. Included are the president's office, business office, personnel office, catalogue, public information, and campus security. The formula recognises a rate per square foot ($0.0675) to reflect the cost of campus security. The rate is adjusted for campuses in urban areas to recognise the additional cost of security in urban environments. Other Institutional Support is funded through a base ($150,000) plus a percentage of other formula expenditures (10.5% over the first $12 mln and 7.59% over the exceeding expenditure).

4. Student Services

Expenditures for student services, including admissions and records, dean, financial aid, student health, and athletics are 7% of total expenditures in 1999. The Formula recognises the number of FTE students on a campus and multiplies that number by a fixed rate ($177) that reflects the actual cost of student services.

5. Research

The research function comprises 6% of total expenditures and includes bureau's, institutes and special projects. Actual expenditures for research for the last completed fiscal year is the base for the first part of research funding. One-half of the prior year's amount is funded, except that no amounts are included to match Centers of Excellence.

The second part of research is a statewide total, which is allocated to the universities in proportion to their prior year's Restricted Funds (external funding) research expenditure amounts. The Restricted expenditures used exclude Centers of Excellence and Chairs of Excellence.

6. Public Service

The institutions are funded at a base amount for public service ($35,000 for all institutions) plus a percentage of the formula amount for Instruction (0.25% for UTK and 1% for all other formula institutions)

7. Staff Benefits

Actual expenditures for the prior year are used as the base calculation for staff benefits. Adjustments are made to annualise mid-year cost increases and to recognise increases associated with the current year's salary policy.

8. Student Aid

This category includes amounts needed to match specific federal student financial aid programs. The amount included is based on the actual federal award levels for the current year, adjusted for any known changes to the matching ratio. Federal programs included are the College Work-Study program, Supplemental Educational Opportunity Grants, Perkins Loan Program.

9. Special Allocations

This category includes appropriations recommendations for special or unusual items, which are not addressed in any other categories. In most cases the last completed year's expenditures provide the base for the recommended funding, adjusted based on the facts and circumstances. Items are added to this category only after critical evaluation.

e.g. The Small Business Development Center at the University of Memphis.

10. Desegregation

This category is used to fund activities to support the Geier case requirements. A number of activities are classified based on the "stipulation of settlement" provisions. Amounts are based initially on the last completed year's expenditures, then adjusted for changes in programs, levels of activities, results, needs, etc.

11. Performance Funding

The performance-funding category provides incentive funding for academic performance in selected standards. Based on the total points earned in the various categories, an institution could have an amount added up to 5.45% of the appropriation. The appropriation used is the current year's. The performance appraisal provides up to 100 points, which converts to a percentage of the maximum 5.45% to which the institution is entitled. There are four factors (called Standards) evaluated with possible 100 points, total. For a detailed description of this component see section below.

12. Equipment replacement supplement

A pool is created equal to 5% percent of the equipment inventory of all the institutions combined. This pool is divided into two parts. One part is distributed to institutions in proportion to FTE enrolment (30%). The second part is distributed to institutions in proportion to the institutions' equipment inventory (70%).

13. Inflation Factors

The formula includes inflation factors for non-salary expenditures and library acquisitions. For 2001-02 the non-salary inflation factor used was 0.3% and the library acquisitions inflation factor used was 3.3%.

Revenue Deductions

From the total of all the formula expenditures determined as explained above, certain formula revenues to be collected or earned by the institution are used as deductions.

Deductions are made to recognise revenues generated from maintenance fees, out-of-state tuition, interest and other income.

The state appropriation recommendation is determined by taking the expenditures generated by the 13 formula components and subtracting revenue deductions.

A different formula is used to calculate recommended funding for Technology Centers. The components of this formula include many of those contained in the 2-year and 4 year computations. Differences in the component calculation have been made to reflect the needs of the centers.

It is important to note that there are three distinct types of funding entities under the umbrella of the Tennessee Higher Education Commission, (1) those institutions whose funding recommendation is recalculated each year based on a quantitative formula; (2) those specialised units and programs whose funding recommendation is derived from the prior year base appropriation amount plus improvement funding, in much the same manner as state agencies; and, (3) programs where funding is needed based on demonstrated need.

The funding recommendation for those institutions that fall under the first category is recalculated each year.

11.2.3 Performance funding (continued)

Since the beginning of the performance funding program in 1978, the Tennessee Higher Education Commission has co-ordinated the performance funding initiative, an incentive-based funding initiative for public higher education that financially rewards exemplary institutional performance on selected measures of effectiveness.

The program is administered on five-year cycles; the current cycle covers 2000-01 to 2004-05. The current assessment, criteria, and scoring protocols of the current performance funding cycle

were developed with the active participation of the Tennessee Board of Regents and University of Tennessee staff as well as state-wide college and university participation.

Table 11.3: Student/faculty ratios by academic area and level

	student ratios			
	lower level	upper level	masters & law levels	doctoral level
Agriculture and related disciplines	18.9	13.7	8.4	4.2
Architecture and related disciplines	18.9	13.7	8.4	4.2
Area, ethnic and cultural studies	21	15.8	10.5	4.2
Marketing ops./ marketing and dist.	23.1	15.8	10.5	4.2
Communications/ comm techn.	21	15.8	10.5	4.2
Computer and information sciences	21	13.7	10.5	4.2
Education	21	13.7	10.5	4.2
engineering	18.9	13.7	8.4	4.2
engineering technology	18.9	13.7	8.4	4.2
foreign languages and literatures	21	13.7	8.4	4.2
home economics and related disciplines	21	13.7	8.4	4.2
general technology	18.9			
law and legal studies	21	21	21	4.2
English language and literature	21	15.8	10.5	4.2
liberal arts and sciences and related studies	21	13.7	8.4	4.2
library studies	18.9	13.7	8.4	4.2
biological/ life sciences	21	13.7	8.4	4.2
mathematics	23.1	15.8	10.5	4.2
military science	23.1	15.8	10.5	4.2
multi/interdisciplinary studies	21	13.7	8.4	4.2
leisure and fitness studies	21	13.7	10.5	4.2
philosophy, religion and theology	21	15.8	10.5	4.2
physical sciences	21	13.7	8.4	4.2
psychology	23.1	15.8	10.5	4.2
protective services and public affairs	23.1	13.7	10.5	4.2
social sciences	23.1	15.8	10.5	4.2
trades and industrial training	18.9	13.7		4.2
visual and performing arts	18.9	13.7	8.4	4.2
health professions and related services				
clinical	10	10	8	4
non clinical	10.5	10.5	8.4	4.2
business management and administrative services	23.1	15.8	10.5	4.2

Source: THEC 2000

Tennessee (USA)

Students and faculty are at the “heart” of the performance funding program initiative; the improvement of student outcomes resulting from the highest quality instruction remains the program’s focus.

There are four performance standards, comprising in total 10 performance indicators. The number of indicators and standards has changed over the years, as table 11.4 shows. The weights presented refer to 4-year institutions. The weighting for the 2-year colleges differs on three indicators.

Institutions don’t have to compete for the performance based funds. The bonus of one institution does not affect the bonus of another institution.

Table 11.4: Performance Funding Standards (1979-1997) and weights (in %), Tennessee (source: Banta *et al*., 1996 and THEC 2001a)

1979-1980	%	1983-1987	%	1988-1992	%	1993-1997	%	2001-04	%
1. Program accreditation	(20)	1. Program accreditation	(25)	1. Accreditation	(20)	1. Accreditation	(10)	1. Academic testing and program review	(60)
						2. Major field tests	(10)		
2. Graduates' performance on major field test	(20)	2. Program field evaluation—via testing or peer review	(30)	2. Major field assessment	(30)	3. Measurement of general education outcomes	(10)	2. Satisfaction studies	(15)
						4. Alumni and enrolled student surveys	(10)		
3. Graduates performance on general education outcome measure	(20)	3. Institutionwide education outcomes via test scores and value added for 4-year and placement of graduates of 2-year institutions	(25)	3. Undergraduate general education outcomes	(20)	5. Improvement actions taken to remedy identified weakness	(10)	3. Planning and collaboration	(10)
						6. Peer review of non-accreditable undergraduate programs	(10)		
4. Evaluation of programs and services via surveys for students, graduates, employers	(20)	4. Instructional improvement based on surveys	(10)	4. Satisfaction surveys	(15)	7. Master's program reviews (universities) or placement (2-year institutions)	(10)	4. Student outcomes and implementation	(15)
						8. Enrolment goals for campus-specific groups	(10)		
5. Peer evaluation of academic programs	(20)	5. Planning for instructional program improvement	(10)	5. Corrective measures (planning for instructional improvement)	(15)	9. Persistence to graduation for minority and all students	(10)		
						10. Mission-specific objectives	(10)		
	100		100		100		100		100

Table 11.5: Performance funding standards 2000-01 through 2004-05, THEC

Standard	indicator	purpose	points
Assessment	Foundation testing of general education outcomes	This standard is designed to provide incentives to institutions for improvements in the quality of their undergraduate general education program as measured by the performance of graduates on an approved standardised test of general education	15
	Pilot Evaluations of Other General Education Outcomes Measures	Pilot projects provide institutions an opportunity to experiment with alternate or supplementary methods of evaluating the undergraduate general education program. The pilot evaluation must measure the performance of associate or baccalaureate degree graduates through the use of a testing instrument different from the one used in foundation testing (Assessment Indicator A).	5
	Program Accountability	This assessment indicator is designed to provide incentives for institutions to achieve and maintain program excellence and accreditation	25
	Major field assessment	This indicator is designed to provide incentives for institutions to improve the quality of major field programs as evaluated by the performance of graduates on approved examinations	15
Student satisfaction	enrolled/alumni/ employer survey	In order to rectify several deficiencies noted in the prior cycle, THEC elected to include national norms as applicable, and to score each of the question items equally. Rather than grouping questions into factors and assigning statistical values, the new methodology gives each question equal weight and utilises event counts for scoring	10
	Articulation and Transfer Standard (University Only)	This indicator is designed to provide incentives for institutions to qualitatively and quantitatively improve and enhance transfer and articulation by evaluating institutional progress in the areas below. This standard will encourage institutions to enhance the number and quality of articulation agreements, enhance the quality of the transfer process, and increase transferability	5
Planning and collaboration	Institutional Strategic Plan Goals	This indicator is designed to provide incentives for institutions to improve the quality of their academic programs by evaluating progress toward specific goals contained in their institutional strategic plan	5
	state strategic master plan goals	Standard 3B is designed to provide incentives for institutions to improve the quality of their academic programs by evaluating progress toward specific goals contained in the state strategic master plan	5
Student outcomes and implementation	Output attainment: Retention/Persistence	This indicator is designed to provide incentives for institutions to improve the quality of their undergraduate programs as evaluated by targeting specific retention and/or persistence to graduation strategies	5
	Job Placement (2-year institutions only)	Standard 4A-2 is designed to provide incentives for two-year institutions to continue to improve job placement of their career program graduates	15
	Assessment implementation	This indicator is designed to provide incentives for institutions to incorporate the information obtained through performance funding related assessment into their day-to-day activities	10

Most of the performance indicators refer to an improvement of the quality of teaching and an increase in effectiveness, e.g., increasing persistence.

11.2.4 Recent developments

The question: '*What did we achieve with the tax support*?' has become an important issue in the debates on funding of higher education. Accountability and effectiveness are keywords in this respect. Performance based funding (PBF) fits in very well this trend. Institutions are made accountable for their performance regarding the fulfilment of students and state needs. There is a shift from *Initiative funding* or *Incentive funding* with in which funds are linked to promised results to PBF, in which *achieved, rather than promised results* are essential.
The relative size of PBF budgets is still limited. It ranges from 2 to 6 percent of total state allocations. However, these percentages do grow.

The general feel is that the traditional enrolment-based funding of teaching activities will remain the dominant model for the years to come. Where PBF is used, it serves mainly external accountability services. Institutional improvement is still a minor function.

11.3 Student support and tuition fees

11.3.1 Student support

United States

In the USA there are a large number of financial-aid programmes, providing students with a grant and/or a loan to pay for the costs of studying.[62] There is a wide variety of financial aid programmes. As far as the loan programmes are concerned there are two main programmes: the Ford *Direct Student Loan Programme* and the *Federal Family Education Programme*. Both programmes consist of three main elements:

1. subsidised Stafford loans (loans with a reduced interest rate)
2. not-subsidised Stafford loans
3. Parent Loans for Undergraduate Students (PLUS)

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[62] Over the years, the balance between federal grants and loans has changed significantly. In 1975 76 percent of federal aid was provided as grants and 20 percent as loans. In the mid 1980s only 29 percent was provided as grants and 67 percent as loans. (Hannah, 1996, p. 507).

These loans have three common characteristics:

1. the federal government guarantees repayment
2. the provider of the loan receives market level interest pay
3. the student taking up the loan has the guarantee that the interest will be not higher than the level specified by law (Zimmerman & Miles, 1994, pp. 774-775).

Loans are provided by the federal government (direct loans) or by private financial institutions, with government guarantees). The 'intake' is done by the higher education institutions
In 1995 25.3 percent of all undergraduate students received a federal loan and 39 percentage got a grant. In 1989, these percentages were lower (19.3 and 37.2) (NCES 2000; 348 and NVES 1994; 315).

Tennessee

In 1998, the state spending on student aid was around 2 percent of total state appropriations. This was significantly lower than the USA-average which was around 6.5 percent (Chronicle 2000; 13).
Tennessee's need-based grant program is based on charges at public universities. An increase of tuition at state's public institutions (see next section) has led to a substantial increase in the appropriations for state's financial aid programmes (Chronicle 2000; 108).

The Tennessee Student Assistance Corporation is Tennessee's designated federal guarantee agency, responsible for the administration of post secondary educational loan programs authorized by the Title IV of the Higher Education Act of 1965, and further authorized by Tennessee Code Annotated Section 49-4-404. TSAC also administers other state and federal student assistance programs as authorized.

11.3.2 Tuition fees

United States

Levying tuition fees is very common in the United States. Public as well as private institutions ask tuition fees: the private universities much more than the public ones. The gap between public and private institutions has grown is frequently referred to as the 'tuition gap' (Woodhall, 1998, p.3).

Tuition fees at public institutions (*4 year-institutions*) are on average $3356 (1999). The highest average fee was found in Vermont ($6751) and the lowest in Nevada ($1956) (Chronicle 2000; 13). Tuition fees for public 2-year colleges are significantly lower. On average it was $1,328 in 1999 with a high in New Hampshire ($3740) and a low in North Carolina ($585).

Tennessee

Average tuition and fees at public 4-year institutions were $2495 in 1999, which was significantly lower than the USA-average. Due to the action of the General Assembly (see above), the state's public institutions raised their tuition by 8 percent on average for 2000.

Table 11.6: Mandatory annual tuition fees for undergraduate programmes, 2000, by type of institution and residence of student, in US$

	in-state	out-of-state
TBR-institutions		
2-year colleges	1419-1445	
4-year colleges and universities	2651-3067	
UTS		
Min course load	286	862
Max course load (full time enrolment	3362	10166

source: http://www.tbr.state.tn.us/business_finance/fees.htm and http://web.utk.edu/~bursar/undergradrate.html

As in many other states, Tennessee higher education institutions may determine their fee levels. Out-of-state students pay a higher fee than in-state students do. In 1999, around 30 percent of education and general revenues (unrestricted) were revenues from tuition and fees at public institutions (THEC 2000; 9).

Differentiation within institutions, other than in/out-of-state and undergraduate/graduate programmes, is not very common.

11.3.2.1 Tuition and participation

The relation between the price of higher education and access to higher education was the subject of two major studies in the USA (Leslie & Brinkman, 1987; Heller, 1997). The price The Leslie and Brinkman study concludes that an increase of tuition fee with $100 on average results in a decrease in participation in the agegroup 18-24 by 0.7 percent. The study referred to the net

price (tuition fees and financial-aid both taken into account). According to Heller, the relation between participation and the sticker price of higher education is a more relevant relation to study since most potential students know the level of the tuition fees much better than the full scope of financial-aid programmes.

The Leslie & Brinkman study used empirical data from the early 1980s. Since then, the level of tuition fees has increased tremendously. In his up-date of the Leslie & Brinkman study, Heller concluded a $100 increase of tuition fee would lead to a decrease of new entrants by 0.5 to 1 percent.

Several studies show that the relation between tuition fees and participation varies by parental income and ethnicity. The relation is stronger when parental income is lower and for (potential) students from minority groups (Heller, 1997, pp. 653-655), McPherson and Schapiro (1998, p.39).
Recent studies have shown also that increase in tuition fees may also lead to a substitution-effect. (potential) Students from minority groups tend to have less interest in *4-year colleges* and more interest in 2-year programmes.[63]
In a recent Tennessee based study, it was found that, in contrast to what was expected, many non-recipients of state financial aid did enrol in higher education. The 'negative' effects of non-receipt of state financial aid and pre-existing economic conditions are found in patterns of institution selection (substitution) and increased reliance upon employment to meet the cost of postsecondary education participation (Davis 2000; 10)

11.3.2.2 Selectivity

In the USA, there is a tendency towards more selectivity in financial student aid. In a number of leading institution need based aid is (partly) replaced by merit aid (Duffy and Goldberg, 1998 and McPherson and Schapiro, 1998). Merit aid refers to the provision of grants and loans to students the institution wants to enrol. Whether there is a need-base is no longer relevant: intellectual (or sports) capacities are the only things that matter.

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[63] See Duffy and Goldberg, 1998, pp. 159-165 and McPherson & Schapiro, 1998, pp. 37-48.

This trend may have negative side effects. Liberal arts colleges cannot compete with the wealthier research universities, and therefore will not be able anymore to attract the best students. Another negative side effect is that much of the merit aid will end up at students from the higher income-categories.

12 United Kingdom

12.1 Introduction[64]

Until 1992 the Universities Funding Council (UFC) and the Polytechnics and Colleges Funding Council (PCFC) were responsible for the funding of universities and polytechnics. In 1992, regional (i.e. for England, Wales, Scotland and Northern Ireland) independent, non-departmental Higher Education Funding Councils (respectively HEFCE, HEFCW, SHEFC and NIEC) were established. A Further Education Funding Council was installed for the colleges of further education.

The HEFCE recognises that not all-teaching, research and related activities can be adequately supported through formula funding. Therefore, apart from the recurrent funding for teaching and research, the HEFCE supplies other related funding for a wide range of purposes, including the additional costs of operating in the London area; liabilities inherited by institutions previously under local authority control; copyright libraries; museums, galleries and collections; and minority subjects. This type of non-formula funding concerns £707m in 2001/02, some 15 of the recurrent funds supplied through the HEFCE.

The Funding council also funds capital expenditures, to help institutions maintain and develop their estate (land and buildings) and their equipment. Formerly, capital grants were provided separately from other recurrent grants. However, since 1997-98, capital grants have been incorporated in the core-allocations awarded to the institutions. These funds may be used by the institutions for estates expenditure and equipment purchase, and - from November 1994 on - also to service loans for new capital projects.

Universities and colleges receive an annual grant from their Funding Council that is largely determined by formula (see next section). The grants enable them to carry out teaching, research and related activities. Funds are provided in the form of a block grant. Institutions are free to distribute this grant internally at their own discretion, as long as the funds are used for the purposes for which they are provided.

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[64] This paragraph is primarly based on Vossensteyn *et al*. (1998) and HEFCE (2001).

12.2 Institutional finance

Below, the calculation of the Funding Council's grants for teaching and research is given. Because the funding mechanisms of the different funding councils broadly look alike, this chapter will concentrate on the funding of universities in England, as carried out by the Higher Education Funding Council for England (HEFCE). The amount of funding distributed by the HEFCE is presented in table 12.1 for the most recent years.

Table 12.1: Recurrent HEFCE grants for higher education (£ million)

	1995/96	1996/97	1998/99	2001/02
Teaching	2270	2224	2694	3162
Research	636	638	829	888
Capital	353	173	*	*
Other related funds	301			
non-formula funding		270	334	707
Flexibility margin		14	10	
Total	3560	3319	3867	4757

* From 1997/98 onwards, capital funds are incorporated in the core-allocations awarded to the institutions.

The funds for teaching, research and related activities are largely formula-based but strictly separated. The formulae take account of the size and activities of individual institutions and the quality of their research. In distributing funds for teaching and research, the HEFCE aims to maintain diversity and increase opportunities, encourage efficiency in the use of public funding, to maintain and enhance quality. The previous funding model, that ran from 1993 to 1998, provided stability for institutions. The new funding model, introduced in 1998-99, aims to provide fairer funding for students. The method was developed in consultation with universities and colleges. It funds similar activities at similar rates for all institutions, and ensures that any variations are for explicit and justifiable reasons. In addition, it supports our policy to increase opportunities for a wide range of people to enter higher education. It takes account of the extra costs of providing for certain types of student, such as part-timers and mature undergraduates, and supports diversity by recognising the extra costs of specialist colleges.and to provide stability in the funding from year to year.

In the next section the formulae used from 1998-99 onwards in the process of allocating funds to institutions will be discussed. It is important to note that funds for teaching, funds for research and income from tuition fees are separate and independent parts of the institutional allocation. The formula for teaching funds is price- (or efficiency-) oriented, the formula for research is quality-oriented, and the 'formula' for tuition fees is volume-oriented.

12.2.1 Funding for teaching activities

Institutions receive teaching funds in the form of HEFCE grant and student fees. Full-time undergraduate students may receive assistance with their fees from the Government based on their financial circumstances. Postgraduate students on taught courses pay fees to institutions mostly from their own funds. Fees for most postgraduate research students are paid by the Research Councils. More than a third of the fees for part-time students are paid by employers. Students from outside the EU are expected to meet the full costs of their courses. The combined total of grant and tuition fees is referred to as teaching resource or simply as resource.

Resource = HEFCE grant + tuition fees.

In calculating HEFCE teaching funds for each university and college, there are four main stages: calculating a standard resource per institutions, calculating the actual resource per institution, comparing both calculations, and calculating the final teaching grant.

Stage 1: Calculating the standard resource

In stage 1 a standard resource is calculated for each institution based on its profile of students, and takes into account the number of students, some subject-related factors, some student-related factors, and some institution-related factors.

The students who count towards the teaching grant calculations are, broadly, those home and EU students who are on higher education courses open to any suitably qualified candidate and which are not funded from other public sources. Categories of students which are not funded through the HEFCE allocations for teaching include overseas students from outside the EU, and students whose funding is provided from public sources such as the NHS or the TTA. In addition, full-time

postgraduate research (PGR) students in years 2 and 3, and part-time postgraduate research students in years 3 to 6, are funded only through the HEFCE funding method for research.

Student numbers are counted in full-time equivalent (FTE) terms. A part-time student is measured by comparing their learning activity with that of a full-time student, so that each will count as a variable proportion of one FTE. Students who undertake practical work or industrial experience for a year outside the university or college (known as sandwich year-out students) are counted at the rate of 0.5 FTE per student for that year. In determining an institution's standard funding for the coming year, the students recruited the previous year are counted, added with any student numbers awarded in the competition for additional places for the coming year.

Clearly, not all students should be funded at an equal rate. Factors such as the types of student, and the nature of the subject, call for different levels of resource. To take account of these factors, different premiums are applied in calculating the standard resource for each institution. They relate to:

- the subject
- the student
- the institution.

Subject-related factors

Different subjects require different levels of resource: some subjects need laboratories and workshops while others are taught wholly in lecture theatres and seminar rooms. The HEFCE uses four broad groups of subjects (price groups) for funding, and has set relative cost weights for each based on sector averages. These cost weights are translated into levels of resource which depend on the total amount of money available each year.

Table 12.2: Different price groups and cost weights (2001/02)

Price group	Description	Cost weight
A	The clinical stages of medicine and dentistry courses and veterinary science	4.5
B	Laboratory-based subjects (science, pre-clinical stages of medicine and dentistry, engineering and technology)	2
C	Subjects with a studio, laboratory or fieldwork element	1.5
D	All other subjects	1

The size of the cost weights has been worked out on the basis of data on actual spending patterns by HEIs, and separate studies of higher education provision in Further Education Colleges (FECs).

Student and institutional premiums

Having weighted the student numbers by their subject price group, a further weighting is applied to take account of student or institutional factors. The student premiums which apply for 2001-02 concern:

- Part-time students: There are extra costs associated with part-time students. For example, the institution's administration costs for two part-time students, each equivalent to 0.5 FTE, will be higher than for one full-time student.
- Mature students: Mature full-time undergraduates often need extra support, as they return to studying (mature students are defined as being 25 or over on entry).
- Students on long courses: Some courses are taught over longer periods than others within the year and so cost more. Courses that last for 45 weeks or more within one academic year attract a premium. This does not apply to courses in price group A, where the course length has already been taken into account within the cost weight.

The institutional premiums which apply for 2001-02 are:

- London premium: A premium towards the higher costs of operating in London is awarded.
- Pensions: Some institutions are paid a premium for staff pensions because of the higher costs of their pension schemes.
- Specialist institutions: Some specialist institutions (defined as having 60 per cent or more of their courses in one or two subjects only) have higher costs.
- Small institutions: Small institutions (defined as having 1,000 FTEs or fewer) often carry disproportionately high central and administrative costs.
- Old and historic buildings: Institutions with old and historic buildings (constructed before 1914) have higher costs to cover, for example, maintenance, refurbishment and heating.

The following table shows the way the student and institutional premiums are applied.

Table 12.3: Application of student and institutional premiums (2001/02)

	Calculated as:	Qualifying institutions
Student premiums		
Part-time students	5% of the unweighted FTE	HEIs and FECs
Mature students	5% of the unweighted FTE	HEIs and FECs
Students on long courses	25% of the FTE weighted by price group	HEIs and FECs
Institutional premiums		
London premium	8% (inner London) or 5% (outer London) of the FTE weighted by price group	HEIs and FECs
Pensions	2% of the FTE weighted by price group	HEIs only
Specialist institutions	Variable percentage (usually 10%) of the FTE weighted by price group	HEIs only
Small institutions	Variable percentage of the unweighted FTE	HEIs only
Old and historic buildings	Variable percentage of the unweighted FTE	HEIs only

Calculating the standard resource

Based on the information above a basic amount of funding for a full-time student is calculated by dividing all the money available to fund teaching (the HEFCE grant plus tuition fees) by the total number of weighted FTE students in the sector. This basic rate of funding (grant plus fee) is called the base price and is the basic rate (that is the rate for a standard FTE) in price group D. For 2001/02, the base price is £2,805.[65] The total weighted FTEs for an institution are the sum of the FTEs weighted by price group, plus the student and institutional premiums. As a result, the standard resource for an individual institution is its total weighted student FTEs multiplied by the base price.

Stage 2: Calculating the actual resource

In stage 2 the actual resource for each institution is calculated. This is based on the teaching grant actually paid to the institution for the previous year, adjusted for various factors such as inflation, plus the HEFCE assumptions of student tuition fee income.

For each institution, the HEFCE grant for teaching they received the previous year is taken as a starting point. Then the following adjustments are made.

[65] The base price therefore implies resource rates for each price group of £12,623 for price group A, £5,610 for price group B, £4,208 for price group C and £2,805 for price group D.

Grant adjustments

- The funding is adjusted where institutions have failed to meet the requirements of their funding agreement (see the section about the "funding agreement" on the next page). This usually arises because institutions are unable to recruit or retain the numbers of students for which the previous year's grant was allocated.
- Adjust for increases due to inflation within the total funds provided by the Government.
- Add any funding for additional students. The Government wants to expand the higher education sector. Each year, over the next few years, the HEFCE will be providing funds to the sector for extra students. They allocate additional places in response to bids from institutions and fund them at standard resource rates (excluding the contribution assumed to come through tuition fees).

Fee adjustment

- Add an assumed income from tuition fees paid by students, Research Councils, local education authorities, employers, and so on.

For 2001-02 the assumed fee income per FTE is as follows:

Table 12.4: Recurrent HEFCE grants for higher education (£ million)

Full-time undergraduates	£1,075 per FTE
Sandwich year-out undergraduates	£1,060 per FTE
Part-time undergraduates	£790 per FTE
Postgraduates on courses with regulated fees (these are courses such as PGCEs and some architecture courses)	£1,075 per FTE
Other postgraduates	£2,805 per FTE

Stage 3: Calculating the percentage difference

The next step is to compare the results of Stage 1, the standard resource, with the results of Stage 2, the actual resource. The percentage difference is calculated as follows:

$$\frac{\text{actual resource - standard resource}}{\text{standard resource}} \times 100$$

The funding method aims to ensure that similar activities are funded at similar rates, in all universities and colleges. Therefore it is not meant to give individual institutions much more or much less money than their standard resource. But at the same time, the HEFCE does not want to apply a completely standardised flat rate, but allows some variation around the standard to recognise the differing circumstances and content of courses at different institutions, as well as to permit some flexibility. As a result a 'tolerance band' or difference of 5 per cent above or below the standard resource is allowed.

Stage 4: Calculating the teaching grant

If the difference between the standard resource and the actual resource is no more than 5 per cent (whether that is plus 5 per cent or minus 5 per cent), then the HEFCE grant will be carried forward from one year to the next. In other words, HEFCE will pay the amount calculated in Stage 2, less the assumed income from tuition fees. This applies to most universities and colleges. However, for institutions outside the plus or minus 5 per cent tolerance band, their grant and/or student numbers will be adjusted so that they move to within the tolerance band over a specified period.

The funding agreement

Each year a funding agreement is drawn up between an institution and the HEFCE. The funding agreement is constructed in broad terms. It implies a weighted volume of activity which is being funded against the resource being allocated. Institutions can vary their recruitment as long as the weighted volume of activity is maintained within certain implied limits. So, for example, they may vary the balance of recruitment between full-time and part-time students or between different price groups. When the funding announcements are made, well ahead of the start of the relevant academic year, institutions cannot be sure about their recruitment in that year. This may be less than expected, the balance between subjects may vary, or the number of students not completing the academic year may differ from expectations. In most cases this does not affect their grant. However, if recruitment results in the actual resource differing by more than 5 per cent from standard resource, then action is taken to draw the institution back within that tolerance band. This would be achieved by adjusting student numbers or funding in the current and/or subsequent years.

When HEFCE provides funding for additional places in response to bids from institutions, they expect them to increase their student numbers. Therefore HEFCE sets them a target for their overall FTE students. If they recruit below the target, the funding provided for their bid will be

reduced. However, institutions are given a second chance to deliver the expected increases, recognising that start-up difficulties may prevent full recruitment in the first year.

The HEFCE sets minimum numbers for students on some medical and dental courses. If institutions fall short of the minimum numbers, grant is reduced.

In addition, the government requires HEFCE to control the numbers of certain types of student to ensure that public expenditure limits are not breached. These are, broadly, home and EU full-time undergraduates, and all students on initial teacher training courses. For each institution HEFCE sets a Maximum Student Number (MaSN) for such students. The HEFCE imposes a one-off penalty for institutions that exceed their MaSN beyond a permitted margin. The penalty is equivalent to the tuition fee for these extra students so that institutions do not benefit financially from their over-recruitment.

The Government also has a policy to increase recruitment to foundation degrees and courses below degree level. Many institutions have been successful in bidding for additional places on such courses for 2001-02, so it is expected their recruitment to such courses to show an appropriate increase compared with 2000-01.

Other elements of teaching funds

Outside the main funding method for teaching, HEFCE also allocates funding each year to recognise the additional costs of recruiting and supporting students under-represented in higher education or who have disabilities. HEFCE identifies these students using the individual student records provided to the Higher Education Statistics Agency (HESA). Students under-represented in higher education are defined as those who come from neighbourhoods with below-average participation. A geodemographic classifier is used to assign each student to one of 160 neighbourhood types, based on their home postcode. Then the students are weighted according to the HE participation rate of each neighbourhood type. Those neighbourhoods with the lowest participation rates generate the highest weightings, while those with above average participation have a weighting of zero. The funding provided reflects institutions' success in recruiting and retaining students from neighbourhoods with below average participation.

Funding to widen access for students with disabilities reflects the proportion of students that each institution recruits who are in receipt of the Disabled Students Allowance (DSA). This is an allowance paid by LEAs to assist students who can show that they have a disability or medical condition that affects their ability to study.

For the first time in 2001-02 HEFCE will also be providing a new funding stream to institutions with less than 80 per cent of students from state schools or further education colleges. This is to support appropriate outreach work to raise the aspirations of state educated pupils to attend the institution from which they will derive the maximum benefit.

12.2.2 Recent development

Funding higher education in the UK has undergone quite a lot of changes in the past decade and a half. The current 'grip' of the government on its higher education sector represents a major change from the autonomous (some would say: elite) status of (especially) the university sector in the years before the Thatcher-regime. The government has introduced competition among institutions, called for improved information on the quality of teaching and research, and especially required value for money in the use of scarce public resources. Thus, accountability and efficiency were (and still are) the key words in education policy. Between 1989 and 1994, public funding per student was reduced by 30 per cent, but because enrolments increased by 50 per cent during these years, the income of the institutions increased. From 1995 onwards, the government continued the reductions on funding per student but also put a cap on any further expansion in student numbers. This is reflected in the imposition of a squeeze in funding for teaching per student. In 1994-95 this was about 4% per student. Where expansion of student numbers is permissible, universities are encouraged to recruit fees only students.

The role of the funding councils in these matters has not been confined to financial planning and provision of funds, but also was extended to the area of quality assessment. In research funding a high priority is given to selectivity, rewarding quality. The funding of teaching is aimed at providing stability to the institutions and - at the same time - forcing them to drive down the cost per student. Although many of the policy instruments used (still are) met with a lot of criticism, evidence suggests that quality has been maintained.

When the government expenditure plans at the end of 1995 indicated a further annual reduction funds, at least until the year 2000, many universities threatened to introduce supplementary student fees of their own in order to remain solvent while providing higher education of satisfactory quality. This was the background against which the Dearing Committee was set up in February 1996. Their major task was 'to make recommendations on how the purpose, shape, structure, size and funding of higher education, including support for students, should develop to meet the needs of the United Kingdom over the next 20 years.' The results of the Dearing Committee and the proposals to introduce a general tuition fee of £1000,- to be paid by the students themselves will be discussed later on. In addition to the Dearing Committee, a number of practical problems with the current funding formula meant that the HEFCE came up with proposals to apply some changes in the funding method for teaching and research in 1996.

Problems with the funding system focus upon the size of the 'efficiency gain' and the unavailability of sufficient and realistic funds (Margin Funds) for additional student places. Because of the prominent role played by the AUCF in allocation decisions, it is very important for institutions to make good calculations of the cost for each type of student, per subject, level of study, and mode of attendance. This poses some problems, especially where presenting the relative cost of full-time students versus that of part-time students is concerned.
There is also criticism on the part of those institutions that do not have sufficient facilities (buildings, etc.) to teach additional students. Additional student places are funded against the institution's own AUCF. Therefore, institutions have little means of actually 'invests' in improvements of teaching quality. A side-effect of the system of quality assessment in teaching and in research concerns the cost and bureaucracy surrounding evaluations of this kind.

In order to provide some solutions for these and other problems, the HEFCE proposed a new funding method for teaching as well as for research. Concerning the funding method, it proposed to establish four basic levels of resource, which will determine standard prices. Variations from these prices will be permitted for a variety of agreed factors, like study-mode, student characteristics and institutional factors. To help institutions estimate the number of FTE students enrolled, a national credit unit system will have to be developed. This way of funding would enable the HEFCE to identify institutions that were under-funded previously and those which were over-funded. Their present funding would be compared with the funding due under the model, and adjustments made over an agreed period.

12.3 Student support and tuition fees

12.3.1 Student support

Till 1999 student aid was provided in the form of grants (awards) and loans. Depending on the status of full-time student and on parental income, students may be eligible for *mandatory awards*. However, since 1999/2000, students can only receive student support in the form of loans (except students who started their studies before September 1 1998. The maximum amount of loans for independent students living in London is £4.590 annually and for students outside London £3.725. Students living at their parents' home may receive £2.950 at most. The loans that apply to students who started after September 1 1998 are means-tested, implying that the maximum amounts can be reduced depending on students' own income or that of their family. Whereas only 28% of the students took a loan in 1990/91, this figure increased to 74% in 1999/00. In practice, the total amount of (grants and) loans is often inadequate to fund students. Students take part-time jobs and accumulate debts in the form of bank over-drafts.

The loans are supplied by a government agency called the *Student Loan Company*. The repayment of loans will become income contingent. Graduates with an income above a certain threshold have to pay 9% additional taxes over the additional income above this threshold. The amount of debt will annually be corrected on the basis of the Retail Price Index (about 2.6% in 2001). Therefore, the real interest rate will be zero.

12.3.2 Tuition fees

Up to 1997/98, the level of tuition fees were considerable in the UK, varying between 1.300 - 4.985 pounds, depending on the discipline. However, for British full-time students these fees were paid by the Local Education Authorities (LEAs), which implies that the students themselves did not have to pay. Other students had to pay the fees themselves or even a full-cost covering rate.

As a result of the Dearing Committee, the tuition system was changed. Since the academic year 1998-99, in principle, full-time students are charged £1000,- annually[66], which they will have to pay for themselves. The tuition rate is £1075 for the year 2000/01. However, students from low-income families are (partially or totally) exempted from paying tuition fees.

Recently, top-up fees have been a major issue in English Higher Education. According to a report commissioned by the Russell group (a network of the top 13 leading universities in Britain comprising Oxford, Cambridge, LSE etc.) universities should have the freedom to charge students extra tuition fees. The report uses six arguments for the freedom to charge extra tuition fees. First, if universities are to expand as the government wishes, only with extra sources of income can this be realised without deteriorating the quality of education. Second, if universities are to compete on a global market they need more resources. Third, since universities have different cost-structures fees should vary accordingly. Fourth, fees in this system would reflect the quality of teaching. Fifth, fee differentiation would allow universities to charge more to those students more able to pay. Sixth, top-up fees would mean greater market discipline and less need for costly regulation (Greenaway and Hayne, 2000).

Opponents of top-up fees expected high fees (up to £ 4,500; 7,078 €) and an exclusion of poorer students. Risks are higher for less privileged students because they are less likely to enjoy the higher career earnings secured by graduates from richer backgrounds with the same degree results. Opponents further point out that in America and Australia freeing tuition fees has led to an explosion of the fees and a drop in the overall participation in higher education, especially among less privileged students.

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[66] Except for Cambridge and Oxford.

13 References

Summary and reflections

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