FSSG
Financial Sustainability
Strategy Group

TRAC
DEVELOPMENT
GROUP
Supporting and understanding
financial sustainability

Management Information Portfolio

Prioritising and aligning resources to academic strategies: resource allocation

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EXECUTIVE SUMMARY

Introduction

The aim of resource allocation is to allocate resources within an institution so as to facilitate the delivery of teaching, research and other activities that the institution undertakes.

In this context, resource allocation includes both the allocation of income (e.g. income from teaching or research) and the allocation of central costs (e.g. staffing costs, premises costs, running costs etc.)

Effective models of resource allocation are essential to the good management of an institution and enable managers to understand what activity is viable and sustainable, and what is not.

This guide brings together the experience of institutions across the higher education sector and provides you with valuable guidance on developing and implementing an approach to resource allocation in your institution.

There is, however, no single standard model approach to resource allocation. Each institution will decide for themselves what they wish to achieve and at what level within the institution they will plan (e.g. faculty, school or departmental level.) This guide describes why and how you should implement a resource allocation system, what issues you should consider and what obstacles you may need to overcome. Any resource allocation system is only as good as the data underpinning it. The quality of data and the costs of collecting it will be important considerations in deciding what system to use.

Understanding resource allocation

Institutions need to have a clear understanding of what they want a system of resource allocation to achieve, and how it fits within their wider strategic and financial planning processes.

Appropriate systems of resource allocation can help institutions to:

- make more effective, evidence-based decisions about the institution's strategic and operational priorities;
- make staff more aware of the costs of the services that they provide and receive, and the potential for savings;
- measure and manage performance; and
- ensure financial sustainability.

Resource allocation is part of what should be a wider management process, which should ensure that all the resources within the institution are being managed effectively and that the relationship between inputs and outputs is understood. Resource allocation should reflect the priorities that the institution attaches to particular activities or outcomes, but should also reflect the relative costs of delivering those outcomes. So, for instance, the institution may wish to allocate resource to an area of activity where costs are likely to exceed income, because it sees this as an area for significant growth and expects the volume of activity (and income) to increase faster than the costs.

Any system for allocating resources can be used to reward successful activity and reduce or limit resource for activities which are not felt to be contributing to the success of the institution. This may be a means of promoting efficiency or effectiveness in teaching or research.

Choosing the right resource allocation model

This project has shown that there are many different approaches to resource allocation and management and institutions may change their approach from year to year.

There is no single "right" model that suits every institution. The best approach is one that encourages proactive management of resources and that makes managers responsible and accountable for the use of resources over which they have control or influence. Key considerations in identifying and developing resource allocation models include:

- the current and future needs of the institution
- the integration with budget setting and budget management; and
- the complexity of the institution.

There is a spectrum of possible models from full allocation models to a contribution model under which allocations are based upon direct costs with a "contribution" required to meet central overheads.

Approaches to resource allocation

In determining how to allocate resources, institutions tend to look separately at the allocation of income (e.g. teaching grant and research income), and the allocation of costs (e.g staff costs, premises costs, running costs, IT costs etc). They also have regard to the relationship between income and costs, with particular attention paid to those areas of activity where costs exceed income, or where they expect particular pressures on costs going forwards. This might be the case where, for instance, they expected energy costs to increase above the rate of inflation.

In developing an approach to resource allocation institutions should:

- consider how far historic Transparent Approach to Costing (TRAC) data is appropriate as a basis for allocating income or future costs ;
- use standard approaches and assumptions where possible, to keep the process simple and efficient;
- decide at what level within the institution resources will be allocated (e.g. faculty, school or departmental level);
- decide what costs will be recharged to faculties or departments and which costs will fall to a central costs budget; There may be a case for recharging only those costs over which budget holders have some control;
- agree with budget holders how far and in what circumstances there is scope for any virement (transfer) or cross subsidy between budget headings (e.g. revenue and capital expenditure, pay and non-pay expenditure);
- get support for their approach from academic and administrative staff, particularly those responsible for managing budgets; and

- understand how complexities around modular delivery, managing any mismatch between control and budgetary responsibility, retention of any surpluses and the use of any contingencies.

Institutions should also recognise that some approaches to resource allocation can create "perverse incentives" and be aware where this is the case.

A simple methodology that everyone can understand and accept is likely to be a more robust approach than a highly complex methodology that budget holders or staff are unable to understand. In developing a system of resource allocation, there is likely to be a trade-off between fairness (a system which aims to reflect the particular circumstances of different budget holders) and simplicity (a system which everyone can understand).

Implementing effective resource allocation models

When developing resource allocation models, institutions should consider carefully who will be managing the resources and how far they are able to manage the resources or costs allocated to them. In most institutions, there will be a range of budget holders, both academic and administrative and at senior and operational levels, each of whom will have their own particular needs and preferences. Decisions taken in one part of the institution may have consequences for budget holders elsewhere who may feel that they have had no influence or part in the decision that was taken. This will tend to weaken accountability.

Effective resource allocation processes may be built into the planning cycle and the following considerations should be thought through.

- The number of phases of resource allocation should be included? Options include an initial phase using the best available data, and a final phase taking account of any amendments to that data, or any additional data that budget holders think is relevant.

- The inclusion of mid-year adjustments to budgets to reflect data on actual income or expenditure. Where this is the case, it should be clear to budget holders, before the year starts, when and how any mid-year adjustments will be made.

- The use of "rolling" forecasts and budgets, in order to get away from the problems of "annuality" (whereby resources are allocated for a twelve month period, which can lead to issues where anticipated income or expenditure slips from one year to the next), and focus more on effective ongoing management of resources .

Institutions should also seek feedback on the resource allocation process. This will allow institutions to improve their resource allocation process over time and to increase the efficiency with which resources are used.

Developments and Future Issues

As priorities change, and in particular as the basis for funding teaching and learning changes from 2012, institutions will wish to revisit their existing systems and processes to ensure that they remain fit for purpose.

In particular, English institutions may wish to look at the allocation of income from undergraduate student fees and expenditure on student bursaries. All institutions will wish to ensure that their resource allocation systems and processes are aligned with their overall vision and mission.

In light of the increased pressure on resources, institutions are encouraged to re-appraise their resource allocation models. This guide may be useful in showing different ways in which institutions allocate resources, and the benefits of these different approaches. Senior managers in institutions may wish to use this guidance to inform their own thinking in this area.

Top tips identified by institutions with resource allocation models

We have summarised below the top tips that institutions have identified, based on their experience of implementing resource allocation.

- Understand what you want to achieve from resource allocation and define the principles of the resource allocation model

- Carefully consider the type of model to be applied – full allocation, partial allocation or "top slice"

- Ensure that allocations are based upon sound methodology – for example use TRAC as a robust form of existing cost allocation

- Understand the level within the institution to which resource allocations will be made and what this means to the impact of the model

- Obtain feedback from the operational users throughout the process

- Ensure engagement and communications with the operational users of the resource allocation model

Contents

INTRODUCTION

What is resource allocation and management?

CIPFA's working party on resource allocation in FE and HE defines resource allocation as "a planning and management tool which provides a means of allocating resources on a methodological basis to various activities in an organisation".

The ability to allocate resources appropriately is a key factor in an institution's capability to manage resources effectively and to achieve financial sustainability. Many institutions already allocate resources, but not all do so on the basis of a robust methodology. Some will allocate budgets on the basis of precedent, or to reflect assumed costs. A more robust approach to resource allocation and management can help staff across an institution understand the drivers of income and expenditure, and prioritise resources to the make best use of them.

How this guide can help you

This guide brings together the experience of institutions across the higher education sector in developing and implementing approaches to resource allocation and management. Whether you are a senior manager, an academic, a planner or a member of the finance team, it will help you to:

- determine what you want to achieve with resource allocation and management;
- consider how different types of resources are best allocated, and at what level they are best managed;
- identify the best approach for your institution;
- decide what you need to do first;
- get the most out of your resource allocation process; and
- implement resource allocation and management effectively across the institution.

Four reasons why you should allocate resources to faculties, schools and departments

1. Make more effective, evidence-based decisions about the institution's operational priorities.

2. Make staff more aware of the costs of the services that they provide and receive, and the potential for savings.

3. To show how different units within the institution perform and their contribution to the financial performance of the institution.

4. Help to ensure financial sustainability by giving more staff an incentive to

A robust resource allocation and management system also requires clear ownership and support that will drive the process, delivering clear and effective outputs that satisfy users and stakeholders across the institution. There is, however, no single standard model approach to resource allocation. Each institution will need to decide for itself what they wish to achieve and at what level within the institution they want to plan (e.g. faculty level or departmental level).

Institutions will also wish to consider how far data from the Transparent Approach to Costing (TRAC) should inform the allocation of resources. This guide considers approaches to using TRAC data and other information in a resource allocation system.

While this guide may not be able to give you all of the answers, it can assist you in identifying what the important questions are and how other institutions have approached them. In doing this, we hope that you will be able to learn from their experiences and to build on their success.

About the guide

We have designed this guide to be of interest to anyone involved in resource allocation and management in higher education, from senior managers to individual academics and members of finance and planning staff.

To help readers to get the most from this guide, we have included a number of features designed to highlight key ideas.

At the start of each chapter is a short summary of the main points covered. This is aimed specifically at senior managers, who may wish to understand the key principles but are unlikely to want to go into too much detail.

For those of us who do want the detail, there is the rest of the guide. This draws on the experiences of institutions already working on resource allocation to bring you a range of ideas, suggestions, examples and case studies. We have also included within the text some 'top tips' from these institutions.

The case studies are highlighted in green boxes and the top tips are in speech bubbles. These are intended to be both helpful and thought provoking.

This guide refers to units within an institution, which may be called Departments, Schools or Faculties. There is no consistent use of these terms in UK higher education institutions, so if your understanding of this guide is increased by substituting one of these terms for another when it appears, please do so.

This guide also includes an appendix, setting examples of different tools and approaches that institutions can use when implementing resource allocation and management in practice.

Top tip

'Top tips' look like this.

Case study

References to Case studies look like this. They are all anonymised, but have been provided by real institutions working to develop and implement workload planning models.

Acknowledgements

The authors of this report would like to express our gratitude to those institutions and their representatives, who have given so generously of their time, skills and experience to contribute to the preparation of this guide.

UNDERSTANDING RESOURCE ALLOCATION

Resource allocation and management can help institutions to make better decisions, to manage costs, to inform pricing decisions and to ensure the financial sustainability of teaching provision and research activity. Resource allocation and management will not in itself make things more efficient or lead to savings or efficiencies. However, it can give institutions and managers within them information and a robust tool which is instrumental in achieving these objectives.

Being clear on why you are interested in resource allocation and management is important if you are to find the best way to approach it. Intrinsic to this assessment of overall aims is, among other factors, whether the institution wishes to allocate resources just for teaching and research activity or for other activities too. The institution should also consider at what level within the institution it is appropriate for resources to be managed. Some budgets may be best managed at faculty or school level, whilst others may be best managed at a lower level such as departments or even courses.

Understanding what you want to achieve

There are a number of clear benefits which Universities derive from robust resource allocation models. When developing an approach to resource allocation institutions need to have a clear understanding of what they want it to achieve.

It may be appropriate to have different resource allocation models at different times. For example, the needs of a resource allocation model during a period of significant change may be different to the needs during a period of stability.

Top tip

Be clear on why you are allocating resources – some may be best managed centrally

> ### Case study
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> "For a resource allocation model to work for the organisation, it should be very clear from the outset the type of behaviour that it is trying to encourage and also conversely the behaviour it would like less of.
>
> This is often very difficult to predict. The changes are often short lived, as at a time of changing a budgetary process everything is reviewed and when staff become used to the system, budget holders find ways round the processes to drive activity or funding in the direction of "we as a Department" rather than "we as a University".
>
> The only solution to this is regular review of the systems with continuous improvements and small enhancements made. Communication is the key to this as then it is possible to design budgetary systems that inform, help and support the activity of the department rather than building barriers and implementing internal "taxation".

The working group has identified four key areas in which resource allocation and management can help an institution.

1. **Making more effective, evidence-based decisions about the institution's strategic and operational priorities**. Resource allocation should reflect those activities which the institution considers to be most important, or most viable. It should reward success, and highlight activity which is not contributing to the overall viability of the institution. Thereby resource allocation can be used to drive change in behaviours and culture through an organisation.

2. **Making staff more aware of the costs of the services that they provide and receive, and the potential for savings**. A resource allocation system can empower managers across the institution to take decisions that will make better use of the available resource. Managers' ability to take decisions which reflect their own understanding, within a system of budget delegation, without reference to the centre will make for better and more effective management of the institution.

3. **Measuring and managing performance** - setting budgets for different activities, based on objective data, will enable the performance of different units within the institution to be compared, and performance managed more effectively.

4. **Ensuring financial sustainability** – an institution's income is largely driven by its student numbers and the volume of research activity. A robust system of resource allocation will reflect student numbers and research activity and will allocate resources to those areas of activity which are successful in recruiting students and generating research funding. Resource allocation systems can also help in managing commercial activity, by highlighting the costs to central services (e.g. finance) of supporting these activities. This in turn can help determine the appropriate "contribution rate" for commercial activity – the proportion of income from commercial activity that goes to support central costs.

Define your key principles

A Research Allocation Model (RAM) should be based upon agreed principles which encompass the purpose of the model and the key features of a model. Defining principles will then enable the most appropriate basis of RAM to be defined.

Case study

In developing the financial strategy of the University, the University's Management Board endorsed a number of key principles which underpin the resource allocation and budgeting process.

- Resources will be deployed in line with approved academic plans and priorities based on the level of income generated by the School.
- Investment will be funded through disinvestment.
- Greater selectivity in the deployment of resources will be a central theme of resource allocation.
- The level of inter-School subsidisation should be reduced over the planning period.
- Financial planning and resource allocation should support and incentivise the achievement of the University's corporate objectives and key strategic targets.
- Resource allocation and budget arrangements should be as stable as possible to allow a reasonable level of predictability and to facilitate medium term planning by Schools and Directorates.
- Schools and Directorates should have information on all sources of income and expenditure i.e. a total economy basis.

APPROACHES TO RESOURCE ALLOCATION AND MANAGEMENT

There are a number of approaches to resource allocation models. The most appropriate approach will vary depending on the size and complexity of an institution and what the institution intends to deliver from Resource Allocation Models. Deciding which approach to adopt is the first important stage in assessing and developing resource allocation models.

The preferred allocation model will also tend to reflect the availability of data, and the organisational structure of the institution. Some institutions will allocate budgets to relatively few high level units within their structure, but others may choose to allocate resources to lower level units in a more devolved model of resource allocation. We have included below an assessment of the key factors that should be considered and the alternative model approaches.

Key factors to consider

The working group has identified a number of factors which institutions should bear in mind when deciding how to approach resource allocation and management.

The current and future needs of the institution

Over time the requirements of an institution will change as the internal and external environment change. For example during a period of change it may be appropriate to apply detailed allocations, but weighted to the strategic direction of the institution to enable change. In contrast, in a period of relative stability perhaps a lighter touch approach to allocation could be in place with more highly devolved accountability.

Resource allocation models can be used to drive through changes in culture and behaviour and to prioritise resources. In the current economic climate more institutions are looking to develop detailed costing and resource allocation models in order to support change.

> Case study
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> "In the current funding climate, with the risk that Research Council funding will become more concentrated towards the more research intensive universities, the University needs to develop its costing methodologies in relation to overheads for sponsors, such as EU Framework programmes and ERDF to maximise overhead recovery. It is anticipated that TRAC data along with the pFACT tool will be used for this."

The integration with budget setting and budget management

A RAM is often the first stage in setting delegated budgets. Therefore their role within the wider budgeting process needs to be carefully considered. There are 2 common approaches to the integration of budgets and resource allocation models:
- In certain institutions the budget information is derived directly from the RAM.

- In other institutions the delegated budgets feed into the resource allocation model. Where this is the case, the primary purpose of the RAM becomes that of measuring department performance and informing ongoing strategic direction.

The complexity of the institution

The complexity of the institution can influence the complexity of resource allocation models. For example a complex institution with diverse income streams and delivery methods will require a considerably more complex approach to a RAM compared to that a simple institution to meet the same level of detailed reporting. However, some complex organisations choose to operate relatively simple models and some simpler organisations choose to use more complex models.

Commonly used Resource Allocation Methodologies

We have considered 4 common approaches to resource allocation have been considered:

1) Full allocation – all activities
2) Partial income and expenditure
3) Top sliced income and expenditure
4) Contribution model

Within each of these there remains a number of variables around the way that income and costs are allocated and dealing with some of the complexities, such as managing surpluses, which arise. They are discussed further in the next section.

Full allocation model
Within this model all income and costs are allocated to the required level – thus enabling a detailed income and expenditure account to be generated at this level.

Partial income and expenditure
Within this methodology the RAM only includes part of the Universities income and / or expenditure.

For example income from teaching may be allocated within the RAM. Other income sources which are commonly allocated directly to department such as research are not included.

Top sliced income and expenditure
This methodology allocates all income to the required level (faculty or department), but takes a "top slice" to cover central overheads based on agreed rate. The central overheads are subsequently not allocated to the faculty or department.

To take an example, if total income to the institution were £200m per annum and the central costs not allocated to faculties or schools were £10m, the contribution rate top-sliced from income to the institution to meet the central costs would be 5%. This contribution rate is important and should be a factor in determining whether additional activity (e.g. commercial ventures) will be viable.

Contribution model
This method is similar to the top sliced income and expenditure model above. However rather than "top slice" income the faculty or department is required to meet an agreed "contribution" to subsidise central overheads.
Each approach has its strengths and weakness as highlighted below:

Model	Pros	Cons
Full allocation model	Enables detailed performance review of all activities at the faculty or department level	Methodology for allocating central costs likely to attract queries
Partial income and expenditure	Enables detailed performance to be reviewed in certain areas – eg teaching if all teaching costs are allocated	Does not enable full performance to be reviewed Mix between full and contribution model – can effectively bring in issues from both models around agreeing a contribution and agreeing methodologies for partial allocation
Top sliced income and expenditure / contribution model	Can avoid detailed allocation methodologies Enables review of performance compared to agreed contribution	Lack of transparency as it is difficult to ascertain whether the school is making a surplus of deficit. Complexities on deriving what a suitable contribution or top slice should be

Key Questions to consider

Should the model include the allocation of academic support costs (central costs)?

Costs such as staffing and non-pay items related directly to teaching or research can be relatively easily allocated to a faculty, school or department. Allocating academic support costs can be more problematic, and can involve a range of cost drivers, most commonly student numbers, staff numbers and space.

The aim of allocating academic support costs is usually to encourage faculties or schools to appreciate the costs of the non-academic and support services that they receive and to bear these in mind in designing and costing new courses or in reviewing how they deliver teaching and research.   Depending on the drivers used to allocate costs it may be possible to encourage more efficient use of existing resource (e.g. teaching space, office space, or IT capacity) rather than creating demand for additional resource which would add to central costs.

Top tip

Consider the value added by resource allocation and management. Consider what behaviours you are seeking to promote and how far the resource allocation process encourages these.

Allocating the costs of central and support services to schools or faculties tends to emphasise the need for schools to make a contribution to these central and support costs, from the income generated from their main direct activities (i.e. teaching and research).   This may focus attention on the sustainability of those direct activities, or on the level (and cost) of the central and support services that are provided, and the "top-slice" from income to the institution that is needed to support those central costs.

Allocating the costs of a service to faculty or departmental budgets where it was previously met from the centre, will focus attention on whether all parts of the institution are deriving value for money from that service. For instance, it may be that the careers advice service offers a better service to, or is more used by, some faculties than others. If all are making a proportionate contribution to the costs of the service, this may lead to a review of service levels provided, so that these are more consistent across the institution.

Alternatively, it may lead to agreement that a common service level is not appropriate and that schools or faculties should be charged different amounts according to the level of service they require and receive. Service level arrangements are covered in more detail later in this report.

How should income and costs be allocated?

There are a variety of methods for allocating income and costs. These include direct allocation, cost apportionment including already utilised TRAC cost drivers, and funding council weightings – eg HEFCE course weightings. These are discussed in detail later within this report.

Should resources be allocated to faculty, school or departmental level?

The greater the number of separate budgets your institution decides to allocate, the more complex and resource intensive the exercise is likely to be. There are pros and cons to each level which should be assessed:

Level of allocation	Pros	Cons
Faculty	Less detailed information required Data for allocations more readily available Link to KPIs which are likely to be monitored at this level	Less precise management information available from faculty level only Greater use of estimates and assumptions Less ability to influence behaviours
Department	Enables management information at the department level Better reflects actual costs Greater ability to influence behaviours	Require more detailed information – for example where teaching of modules is shared across departments More onerous process

In general, however, the purpose for which the resource allocations are made will help to inform the level at which the allocations should be made. For example, if the aim is to incentivise proactive management of resources (such as teaching space) by school or departmental heads, it would be appropriate to allocate budgets for those resources at school or departmental level.

Further consideration should be given to the current model of central verses devolved control within the institution and how the resource allocation model will fit with the existing management culture. Allocating resources to faculties enables devolved control of the departmental resources to faculties.

What data do you have available?

Later in this report methodologies for allocating costs are considered. Deciding on the appropriate methodology should include consideration of:

- Whether the data is readily available
- Whether the data can or is already being used for other purposes to support wider efficiencies.

Possible data sources to be considered include:

- TRAC cost drivers such as the time allocation survey (TAS)
- Space utilisation
- Student numbers
- HR data
- Income models

Detailed data vs assumptions

It may be appropriate or indeed necessary to use informed and pragmatic assumptions in allocating costs, but these may need to be tested if schools or departments to ensure agreement and acceptance. A more developed approach, better reflecting actual costs, may require collection of detailed data to inform cost drivers. You may decide that TRAC data is of use here. Depending on the number of staff and students involved, a simpler approach may be the right one to adopt, for example, having regard to the costs and benefits of collecting detailed data to inform the allocation.

Assumptions about how teaching and research are delivered are a necessary part of resource allocation. However, it is important to make it clear when presenting allocations what assumptions have been made and to communicate to users any potential weaknesses in the data on which allocations are based (e.g. there have been changes in the institution since the year to which the data relates).

Historic vs future data

Using historic cost data such as TRAC can be an excellent starting point of robust budget and RAM allocated costs. It can be a useful basis for budgeting new activity, such as externally funded research or new academic programmes. However it is historic data and may not best reflect how the institution is operating or how it wishes to operate in the future. There is a risk that basing resource allocations on historic data will perpetuate existing inefficiencies and not do enough to incentivise new approaches that will reduce costs and increase efficiency.

Historic data (e.g. TRAC data) may be useful in allocating budgets for future years. However, basing

Case study

"The University has been using fEC data from the TRAC model in spreadsheet models for costing applications for externally funded projects and academic programmes for some time. "

future allocations on past expenditure may not be the most effective way to allocate resources. It may create a perverse incentive to spend up to budget, to ensure that future allocations are not reduced. On the other hand, taking a flexible forecasting approach, and allowing some "carry over" of unspent resource from one accounting period to the next, may influence budget holders not to spend up to budgets, unless they need to do so.

Data on past levels of spending or activity does not always tell the whole story. There may be significant changes in the way that teaching or research is delivered which will affect future demand for resources. For example, there may be increasing demand for online teaching resources and reducing demand for paper based information (e.g. some library services).

Ensuring engagement

The development and implementation of a robust and effective system of resource allocation and management will take time, effort and resources. It will also require collaboration between academic staff, senior management, finance, planning, information technology, and estates teams. Therefore ensuring appropriate engagement, and support at senior and operational levels, is critical to successful implementation.

Once a system for resource allocation has been developed, it will need to be communicated, used, monitored, acted upon and reviewed. Staff who will be responsible for managing allocations will need to be trained in their responsibilities and in using any software that supports reporting on budgets or other key performance indicators.

Case study

"One of the institutions which contributed to the case studies in Appendix A has brought together its academic planning process and the RAM process to gain buy in to the latter. The institution's academic planning process informs decisions on financial priorities which, in turn, help to determine cash limits for particular budgets. These cash limits then feed into the RAM process. "

How transparent is the model?

Institutions will need to consider how best to communicate information on allocations to those who need it. Some steps that can help with this process include:
- Identify expected users of the information
- Understand what they will use it for
- Know what other information users receive
- Determine how best to present the information in a transparent format so that users of the information know what it is telling them and how they can use it.

Allocating income and costs and complexities that arise

The detailed methodology for allocating income and costs will inevitably vary for each institution. There is a careful dynamic to be struck between including enough detailed allocation for robust and trusted management information, and the sheer time and effort required in more detailed models. This section sets out commonly identified approaches to allocating income and costs. In addition it highlights some of the complexities that will inevitably arise from resource allocation models. These complexities should be thought through and integrated into a resource allocation process to minimise conflict between users of the model.

Allocating income

Following the decision on which approach to take to modelling (full allocation verses top slice model) the institution will need to decide how income is allocated to the faculty or department. The high values involved here and complexities around modularisation result in this being a critical area to ensure that assumptions are robust.

Teaching income can be allocated on the basis of **student numbers** in a two step process.
- Identify the student numbers or "load"
- Allocate income in an appropriate method

Student load is derived from student numbers which "belong" to a department. However, the costs of delivering courses to these students is often split across departments with the use of modular courses and therefore teaching delivery, and related costs, may reside in another department. Therefore the basic student number can be adjusted to reflect teaching delivery such that the load allocated to a department reflects the underlying teaching costs within that department.

Once load is identified, income can be allocated to faculty or department using some assumptions.
- Allocate in line with funding council weightings such as HEFCE or Scottish Funding council weightings. Note that these weightings are based on a broad average across institutions so there may be reasons why these are not appropriate for a particular institution
- Where income is specific – eg nursing or teaching contracts, this income is commonly allocated directly to the relevant faculty or department
- Assumptions can be applied to bursaries – either following actual historic trends or taking a % deduction across all income.

Case study

"The RAM includes detailed information on the notional income earned from each of these sources by School. Where possible, appropriate funding methodologies applied in the allocation to the University by the relevant HE funding body have been reflected in the allocation of income in the model. "

Research income is typically already allocated to departments or can be allocated using results of the most recent research assessment exercise (RAE).

Other income, for examples, conference income may be difficult to predict and difficult to identify appropriate drivers for allocation. Historic data may be an appropriate method to allocate other income in this instance. Where the income is centrally received, and the institution has adopted a top slice or contribution model, an alternative approach is to net this income off central costs when identifying a required contribution to faculties or departments to cover central costs.

> Case study
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> "The income allocation policy is that departments will receive 100% of earned income.
> - Academic fees - allocated on the basis of student FTE.
> - HEFCE T grant – allocated on the basis of student FTE.
> - Mainstream QR – allocated on the basis of research active staff FTE (weighted by star rating).
> - Charity QR – allocated on the basis of historic level of charity income.
> - PGR QR – allocated on the basis of PGR student FTE.
> - HEFCE specific grants – allocated directly to the departments involved in the activity."

Deducting a contribution

At this point a "contribution" may be deducted for academic support costs if the top slicing / contribution methodology is followed.

> Case study
>
> "…the Schools' contribution to Academic Support is based on a 'flat' rate applied to Schools' general income as distributed through the RAM and after having "top-sliced" for a number of approved institutional budgets. "

Allocating costs

Institutions may adopt a model which allocates all costs to faculty or department level. Alternatively a top slicing/ contribution approach may be taken in which case many of the costs will be direct costs. However in either methodology there may be the need to allocate costs:

- Allocating faculty costs to departments to support resource allocation to the department level
- Allocating all or certain central costs to faculty or department.

Cost drivers are typically required to allocate central costs, faculty or department overheads.

Use of TRAC as a cost driver

Universities are already required to use a number of cost drivers within their TRAC models. The case studies provided at the back of this report either already use these TRAC drivers to inform resource allocation models or were looking to develop their resource allocation models to further utilise existing TRAC drivers.

> Case study
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> "All central service costs are allocated on the same basis as the cost drivers applied in the TRAC model. The costs drivers are recalculated at the time of resource allocation e.g. current staff & student FTE counts."

> Case study
>
> "The use of a TRAC based cost driver approach to inform the allocation of central support costs makes good sense in that each School's share of costs will be based on a measure of, or proxy of, usage as opposed to the current income based approach. Currently, those Schools that are generating high levels of income and using their resources efficiently are effectively being penalised in that they are paying more for central services."

Other commonly used cost drivers

The table below illustrates the types of income and expenditure that may arise in an institution and a possible basis for allocation of the budgets for each at school/faculty or departmental level. These are only examples, intended to show the range of different costs and income and possible approaches to allocation. It may be that not all institutions have data available to form the suggested basis for allocation. Where this is the case, it may be appropriate to use a "proxy" measure in lieu of the data on the actual cost driver.

Income/cost	Basis for allocation
Bursary funds	Publicly funded student FTEs
Careers service	Publicly funded student FTEs
CPD expenditure	Academic staff FTEs
Estates	Space usage data from annual survey
Finance	Number of expenditure transactions
HR	Staff headcount
International office	Overseas student FTEs
IT	Number of system users (staff and students)
Library	Data on library usage (staff and students)[1]
Registry	Student FTEs
Research Office	Volume (or value) of research contracts being managed.
Vice Chancellor's office (and related functions)	Staff and student numbers

Data may be available on space utilisation, the costs of teaching space, demand for IT services and library services and so on. Data on the usage of particular services (e.g. careers service or student health and counselling services) may also be available. However, such data may not be in a form that you can use for the purposes of RAM, if you cannot identify the school or faculty to which service users belong.

To give an example – the costs of providing a library service are mainly driven by the number of users who access the service. The more users (students and staff) there are - the higher the cost. However, not all students (or staff) will use the library service with the same frequency, and some may request more loan items or access more information than others. A good basis for allocating library costs would be based on data on actual usage of the library service, broken down to the level at which budgets are to be allocated (e.g. faculty or school). However, this information may not be available in every institution. A proxy measure might be a weighted student and staff headcount.

In addition to the drivers in the table above, some institutions apply weightings for particular subjects (e.g. STEM subjects) where the costs of delivering teaching or research are more or less than average. TRAC data can be used here to form the basis of these weightings.

Different measures of student load can be used, depending on the nature of the costs to be allocated. For instance, in allocating the costs of an International Office, it might be appropriate to consider only the number of international students. Similarly for the costs involved in supporting or recruiting post-graduate students, it would be appropriate to use a count of postgraduate students, rather than all students.

Allocations based on simple measures of staff or student numbers will take no account of the nature of individual courses, different modes of delivery, different timetables, facilities or equipment needed for research or variances in staff to student ratios.

There is a trade off between complexity and fairness, and this is a topic which institutions may need to revisit from time to time in order to ensure that their system of resource allocation remains fit for purpose.

One University has used HEFCE teaching funding models to underpin its process for Resource Allocation, but has then chosen to "flex" the resulting allocations to reward Departments which have been highly graded in the RAE with a "teaching premium" which increases the resources allocated to them. Targeted allocations are made to strategic investments in research activity and the balance is allocated according to RAE performance/ results. This has the benefit of both rewarding excellent past performance and providing strategic investment funds.

Service level agreements

It is possible to formalise the relationship between service managers at the centre and "customers" in schools and departments through the use of service level agreements or similar arrangements. Under a service level agreement, there is an initial discussion and negotiation between managers of the central service (e.g. finance, IT or HR) and budget holders in schools or faculties about the level of service to be provided and what it will cost. There may be agreement that particular schools or faculties wish to receive a higher (or lower) level of support than their peers. This could then be reflected in the cost for that service charged to those schools or faculties. Through a service level agreement, managers in the schools or faculties can be given more say in what service is delivered and what it costs them.

The institution will wish to decide what level of reporting and monitoring it wishes to put in place in respect of any service level agreements. These could range from a simple annual "customer satisfaction survey" to a more rigorous reporting regime with regular reports on performance measures for service delivery (e.g. turnaround times for processing financial transactions, or availability of IT services).

However, caution should be exercised in the use of service level agreements. Institutions can find that the bureaucracy attached to the specification, delivery and reporting arrangements far outweighs the intended service benefits. Institutions, therefore, often use less formal service arrangements which provide greater flexibility and efficiency in order to deliver the support required.

Complexities arising from RAMs

Shared teaching

Allocating resources at departmental level using student numbers and staff numbers as the basis for allocation may require information at a very detailed level, especially where departments share staff or where the same students study modules in two or more departments. Particular attention is needed to reflect this within the allocation of income and central costs to faculties and departments.

> Case study
>
> "Modules taught by one School but used by other Schools for their programmes (inter Faculty/ School servicing – maths is a good example of a module owned by one School and feeding into other School's programmes) is dealt with very simply. The total of module credits that they teach on behalf of each other is evaluated at band D and an adjustment made."

Control of staffing budgets

Staff costs are typically a very high percentage of total costs and have been subject to tight control in recent years in line with cost reduction agendas across the sector. However there is a mismatch between empowering departments to have full budgetary control, but retaining central control over recruitment.

This scenario has played itself out in many institutions in recent months where the reduction in staff costs through strict central recruitment control has supported an overall reduced staff cost. However this has resulted in department operational managers having less control of their budgetary spend.

Treatment of unspent surpluses

RAMs which directly influence budgets result in an interesting issue where actual results are favourable to budget. This gives rise to an unspent "surplus" at the faculty or department level. There are conflicting needs between the institution wanting to use these surpluses to cover losses elsewhere or to support future investment compared to the department who will be looking for reward for "coming in under budget".

- Having a methodology whereby the institution takes all surplus can result in a spend it or lose it culture within the wider Universities – thus discouraging efficiencies.
- Having a methodology whereby the faculty or department retains all surpluses removes control from the centre and leaves an issue on how losses elsewhere might be covered.

There are examples within the sector of both approaches and examples of shared approaches whereby any surplus is shared between the centre and departments. The centres identification of a "sustainability requirement" can be a further way of mitigating this issue.

"Additional contributions generated by a department are reviewed and strategically invested in the parts of the University that need investment, which will not always be the department that is responsible for generating the additional income.

There is, therefore, a disconnection between additional income earned and the approval to spend it.   When we are in more stable economic times the University's desired enhancement to this model, to further encourage departments to generate more income, is to allow them to spend an agreed percentage of the additional income in their own department."

Establishment of a contingency

Another key complexity arises on whether a contingency should be retained either at institution, faculty or department level. Such a contingency can be used for unforeseen costs and /or to retain surplus for future investment. There is a dynamic to be carefully managed between the requirement to hold back a contingency and the feeling that operational managers have been "deprived" of resource.

IMPLEMENTING EFFECTIVE RESOURCE ALLOCATION MODELS

In order to get the most out of the resource allocation process, institutions will need to have the support of academic and administrative staff alike. This will be facilitated by strong leadership and effective engagement with everyone involved in collecting, processing, analysing and using costing data and information.

Institutions can engage staff in the resource allocation process by getting them involved, by making everything accessible and easy to use, and by providing appropriate training and support. Institutions should make every effort to 'sell' the benefits of the resource allocation process to their staff.

Institutions may encounter resistance to the implementation of a resource allocation process such as resistance to change and lack of confidence in the basis of the allocations. However, these issues can be overcome if addressed promptly and proactively.

Where the Higher Education sector is now

The evidence from the workshops that took place as part of this project is that there is a variety of experience of the implementation and operation of systems of resource allocation.

Some institutions have developed processes over a number of years, which have varied in terms of their scope (e.g. they have included or excluded particular categories of income or expenditure), and in terms of their complexity (typically the number of different drivers used to allocate income and expenditure). Some have moved from simple to more complex models for resource allocation.

Others have gone further and moved from simple models to more complex models, then back again, as they have decided that complexity does not increase fairness or does not necessarily encourage the behaviours that they wish to see, resulting from the process. In some cases, institutions reported that the work involved in allocating resources to devolved budgets, then recharging formulaically calculated shares of central costs to those budgets, on a monthly basis, was not driving increased efficiency in the delivery or the use of central services.

As priorities change, and in particular as the basis for funding teaching and learning in England changes significantly from 2012, institutions will wish to revisit their existing systems and processes to ensure that they remain fit for purpose.

The importance of engaging and communicating with people across the institution

If your institution is to implement effective resource allocation effectively and to realise the benefits that it offers, then it is vital that it has the support of senior management, operational departments and academic

Top tip

You need senior management buy-in, too, so that you can get the resources and data that you need.

staff. In order to ensure this level of support, a high level of engagement and communication will be required.

Firstly, the resource allocation process needs buy-in from staff across the institution. While many people will see resource allocation as essentially a financial process, it has the potential to add value to the institution and increase the efficiency and effectiveness of the institution in managing its resources. This tends to be the case where the resource allocation process focuses attention on the way resources are used, and the costs associated with central services.

Secondly, you should engage with those involved in providing income and expenditure data and with those responsible for managing budgets such as members of academic staff, so that they can understand how the resource allocation and management system will work and what it will be used for.

Finally, you should encourage feedback from staff on their own experience of the process, as a means of testing whether it is leading to the sorts of behaviour that you wish to encourage, and as a means of identifying any obstacles or barriers to effective implementation.

Case study

Within TRAC, one University allocates the income and costs from Faculties to Schools as this enables it to calculate meaningful fEC rates at School level.

As the Deans of Faculty are realising that Key Performance Indicators will not work effectively with income and costs allocated to Faculty codes on the University's finance system, they are starting to develop ways to recharge them out to Schools.

Several different models are emerging and so the TRAC and Management Accounting teams at the University are now working together to devise a common approach, which will work for both management accounting and TRAC reporting purposes.

How to get people on board

Institutions have developed a variety of ways of engaging with those likely to be affected by resource allocation and management. Here are some of the approaches that have proven to be most effective.

1. **Get people involved.** Get out there and explain to people what you are doing and why you are doing it. This can be done through workshops or "road shows" taking place in faculties or schools, and involving administrators as well as senior managers. Get their feedback and their suggestions. Ask them what they need and how they want it provided.

2. **Make everything really easy to use.** When you need people to give you data, give them a clear form or template to complete. Be consistent in your approach to resource allocation and management across the institution. When you are providing users with information, make it

clear, focused and accessible. Any electronic systems should work properly and be available across the institution. There should be no need for bespoke local systems, which can add to complexity and the potential for errors in data.

3. **Embed resource allocation and management in existing processes.** Rather than developing resource allocation as a stand-alone system, try to integrate it into existing processes and activities, such as budget setting and departmental financial reporting. This will help to engage people with the allocation process and will make it easier to embed resource allocation into the planning and financial management processes. Where the resource allocation process is separate from the regular planning and financial management process, staff may not attach such value to it.

4. **Provide training and support**. Explain how the resource allocation and management process works and how it can help them. Give them real examples using real data. Develop resource allocation champions who can then promote the process in their own departments or schools. Provide training online, in groups and individually. Make sure people know what is expected of them and how the data that they provide will be used. Training on the system of resource allocation and management should be part of the induction process for new senior managers.

5. **Sell the benefits.** Explain to people how the resource allocation process can help to ensure that resources are allocated effectively. Let them see that it is easy to use and that it will help them to make better decisions. Show people how it can be used to make informed decisions on strategic relationships between financial and non-financial factors.

Common barriers and how to overcome them

In developing and implementing their chosen approach to resource allocation and management, institutions will face a number of barriers. Below are some of the difficulties that the institutions contributing to this guide have encountered; together with how they have overcome them.

Barrier	How to overcome it
Defensiveness and resistance to change.	Listen and respond to their concerns.
	Explain why resource allocation is important, how it will work and what benefits it will have.
	Explain any assumptions and how they have been arrived at.
	Share data and explain how it will be used.
	Keep the allocation process open and transparent.
	Have a high level of senior management support.

Lack of skills, expertise or resources.	Don't take on more than you can achieve with the resources you have available. Consider the costs of implementing a new system and the need to work across the institution to embed it.
	Keep the allocation methodology as simple as possible.
	Train budget holders in using the reporting tools and in taking action to address any under or over-spending.
	If necessary, seek external support, from your peers, or from your internal auditors.
Lack of confidence in the underlying data.	Develop robust processes for collecting data, including clear definitions and quality control arrangements.
	Use existing sources of data where appropriate (e.g. HESA returns). A single source of data will be more efficient and should be more reliable.
	Review data when it has been submitted and try to identify any obvious errors.
	Allow departments to see 'their' data and give them the opportunity to identify any problems with it.
Organisational barriers.	Start off with a simple approach to resource allocation that can be applied at whatever level you consider appropriate.
	Try to link resource allocation to existing processes and systems (e.g. finance system).
Undue procrastination.	Recognise that you will never have the perfect resource allocation system.
	Keep things as simple as possible.
	Focus on why you are allocating resources and how you expect budget holders to manage them
	Try to use the same approach for all departments, schools or faculties, rather than tailoring the allocation process to particular circumstances.

Continuous Improvement – Incorporating Feedback

The working group identified a common practice of issuing indicative resource allocations, seeking feedback on these, before issuing final allocations. Typically, allocations are issued before the start of the period to which they relate e.g. allocations issued in May 2011 for the academic year 2011/12.

It can be a positive step to review allocations at some point in-year, in the light of actual or revised data on income and expenditure. Where income or expenditure is not in line with profile, there may be a need to revise allocations accordingly, working within the total resource available.

Figure 1 below shows the different stages an institution might go through to issue provisional, final and revised allocations. It would also be possible to omit either the first step (provisional allocations) and/or the third step (revised allocations.) The need for these will depend on the accuracy of the data collected initially, and the extent to which it is possible to use in-year data on income and expenditure to forecast outturn income and expenditure.

Prior to year(s) to which allocations relate

Collect data → Analyse data → Issue provisional resource allocations → Receive comments → Analyse comments → Issue final resource allocations

During year(s) to which allocations relate

Collect data → Analyse data → Issue revised resource allocations
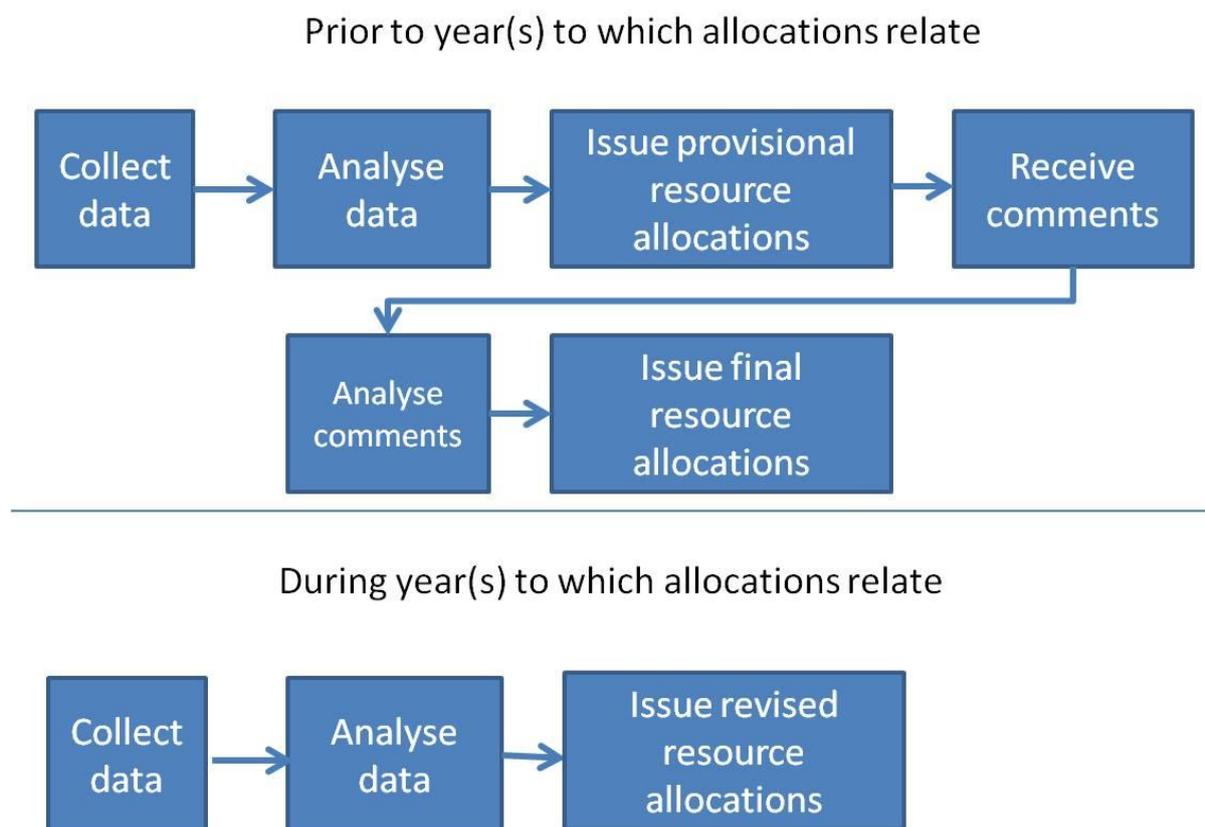
Figure 1 – Possible stages for a resource allocation process, where resources are allocated for a year or more

There are costs involved in issuing both provisional and final allocations, as a two stage process takes longer than simply issuing final allocations in one go. Over time, as confidence in the process and the data underpinning is grows, it may not be necessary to issue provisional allocations. However, when introducing a new system or making changes to an existing one, there are benefits in allowing budget holders the chance to comment on provisional allocations, before these are finalised.

Similarly, there is a cost in issuing revised allocations in year. The benefits of allowing revisions to allocations in year are that it allows a route for resources to be reallocated to meet changing or new priorities. It also helps to manage any forecast under or over-spending that may occur, before the year end. Experience of the resource allocation process will show whether provisional allocations or in-year revisions are appropriate for a particular institution, or for particular budgets. For budgets where there was likely to be little variance between plan, forecast and outturn, there may be no value in considering revised allocations – this might be the case when recharging space based on occupancy which is unlikely to change during an academic year.

It would be possible to issue final allocations for some budgets, which would not then be subject to review, but to issue provisional allocations, and revised allocations for others, where there was likely to be considerable variance between budget and outturn e.g. in the case of a budget allocated based on a driver that varied significantly from year to year.

Developments and Future Issues

As priorities change, and in particular as the basis for funding teaching and learning changes, institutions will wish to revisit their existing systems and processes to ensure that they remain fit for purpose.

In particular, English institutions may wish to look at the allocation of income from undergraduate student fees and expenditure on student bursaries.

All institutions may wish to consider how far their own practice in allocating resources and managing them is adding value. Throughout this project, we have found a number of institutions who, having previously implemented a system of resource allocation based on cost drivers, have now drawn back from such a system. Their reasons for doing so vary and include:

- The wish to focus more on key performance indicators (e.g. student satisfaction, RAE ratings, % financial contribution to central costs and staff: student ratios) than on inputs to the delivery of teaching and research;

- The cost and effort involved in creating separate budgets for different costs for each department, and then to process monthly transactions to recharge notional costs against each of those budgets, does not add value for anyone;

- They wish to manage certain budgets at a higher (more aggregated) level. This may reflect, for example, the intention to develop institution-wide initiatives for more efficient space and energy management, rather than encouraging the development of more heterogeneous local systems and solutions.

Case study

One University which previously allocated the costs of central functions to faculties / business delivery units, has now moved to a model whereby faculties make a contribution to cover central function costs. Through the system of resource allocation at faculty level, it was able to focus attention on those faculties / delivery units which, on the basis of the resource allocation system adopted, were using more resource than they had been allocated. This was a stimulus to increased efficiency in the use of space and other resources.

However, over time, once those efficiencies had been achieved, the system of resource allocation at faculty / business delivery unit ceased to add value, and the effort involved in allocating shares of central costs then recharging these, was perceived to be greater than the resulting benefits.   The Institution, therefore, drew back to a less detailed system of resource allocations and now expects departmental heads and managers to focus on delivering the Institution's key performance indicators.

Figure 2 (below) illustrates the steps that the Institution took.

Implement devolved resource allocation system

Review performance against allocations

Move back to a less devolved resource allocation system

Encourage increased efficiencies or income from units which are in deficit
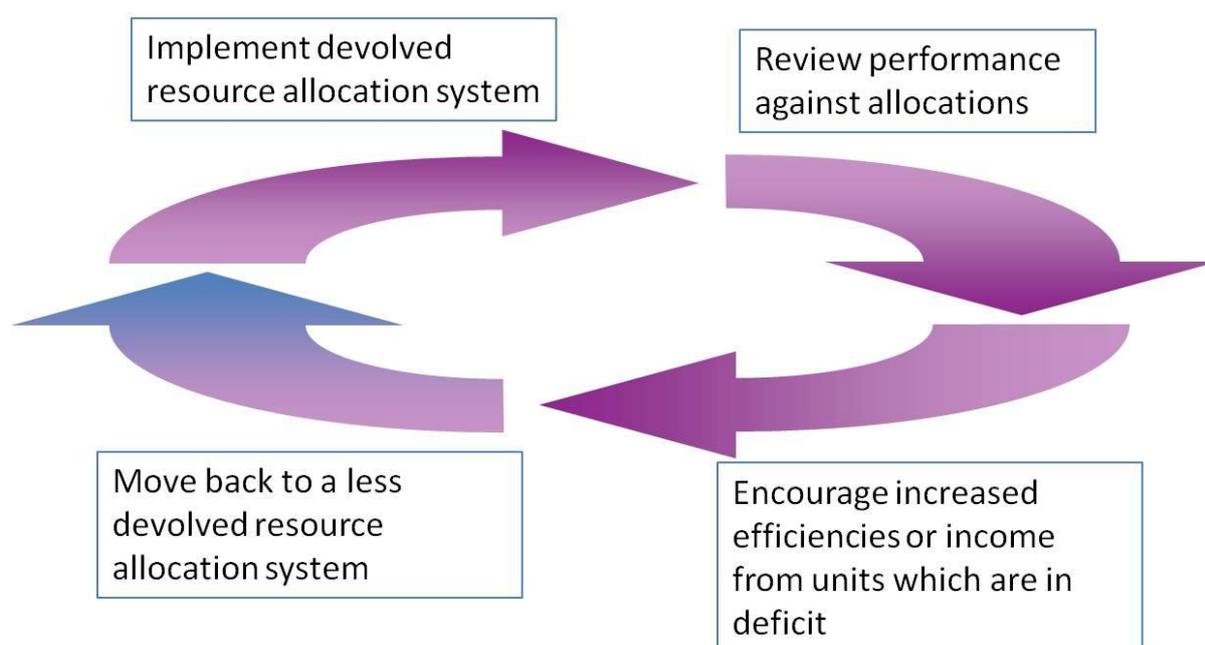
Figure 2 – Steps to introduce a devolved resource allocation process then to return to a simpler system.

Other institutions continue to operate a devolved system, with resources allocated to schools or departments, and the costs of central services charged to those budgets.   Under such a model, there can be closer scrutiny of the services which budget holders receive and judgements as to whether these are at an appropriate level and represent value for money.

Conclusions

There is no 'one size fits all' approach to resource allocation and management. The approach needs to reflect institutional needs and priorities.

It is for individual institutions to develop and implement an approach that works for them, based on what they want to achieve through the resource allocation process, what resources they can devote to it and what data they have available. Based on experience in resource allocation across the sector, institutions should:

Top tip

There is no "one size fits all"

- Decide on what they want to achieve and over what period of time. Changing behaviours can take time.

- Get senior management buy-in and seek to develop institution-wide understanding of why resource allocation and management is important.

- Find out what data they already have available and think about how this could be used to inform resource allocation. Where information is not available, consider what would be the cost of collecting it, and whether it would be worthwhile.

- Work with colleagues in planning, finance, estates, information technology, marketing and academic departments to develop a resource allocation model and test it using data across a number of previous years. Consider how consistent the results would be, year on year, and whether this is acceptable. There may be good reasons for allocating resources differently in the future, but it is important to ensure that the model does not produce perverse or random outcomes which are at odds with the stated priorities.

- Decide what resources you are going to be allocated, and at what level within the institution (e.g. Faculty, School, Department etc).

APPENDICES

Appendix A – Case Studies

Case Study 1 – Implementation of Resource Allocation and Management at University A

Background

The Resource Allocation Model (RAM) is produced annually by the University as part of the integrated academic and financial planning cycle. Production of the RAM is the culmination of a consultative process whereby estimated resources available to the University are compared to projected costs. Information contained in the model is considered along with other performance indicators to determine the allocation of these resources for the forthcoming academic year. In addition, the RAM is also intended to provide a foundation upon which the financial viability of proposed future plans can be assessed.

The RAM process begins with the formulation of first provisional or draft estimates for the forthcoming academic year. Detailed projections are made of the University's estimated expenditure based on known commitments, plus approved developments, along with estimates of the levels of income that the University will receive. An initial comparison of income and expenditure estimates informs the extent to which proposed expenditure or anticipated income needs to decrease or increase, to achieve the target level of surplus as determined by the University's financial strategy.

Having established the projected position at institutional level the process of comparing the projected income and expenditure at School level can begin. As part of the process of compiling the first draft estimates, total income from all relevant sources has been established. The RAM includes detailed information on the notional income earned from each of these sources by School. Where possible, appropriate funding methodologies applied in the allocation to the University by the relevant HE funding body have been reflected in the allocation of income in the model. Having set out the notional income generated by each School, a standard contribution is deducted to fund the services provided by the academic support sector. After this contribution has been deducted from School income, the net income at School level is compared to projected expenditure.

At this stage of the development of the RAM, input is sought from the University Operating and Management Boards (UOB and UMB) through the academic planning process regarding financial priorities, so that the initial expenditure plans and income levels can be adjusted to establish cash limits. This information, together with consideration of other information and priorities, is used to agree cash limits. When cash limits are agreed, the RAM can be finalised and distributed.

In developing the financial strategy of the University, the University's Management Board endorsed a number of key principles which underpin the resource allocation and budgeting process.

- Resources will be deployed in line with approved academic plans and priorities based on the level of income generated by the School.

- Investment will be funded through disinvestment.

- Greater selectivity in the deployment of resources will be a central theme of resource allocation.

- The level of inter-School subsidisation should be reduced over the planning period.

- Financial planning and resource allocation should support and incentivise the achievement of the University's corporate objectives and key strategic targets.

- Resource allocation and budget arrangements should be as stable as possible to allow a reasonable level of predictability and to facilitate medium term planning by Schools and Directorates.

- Schools and Directorates should have information on all sources of income and expenditure i.e. a total economy basis.

In line with these principles, the RAM retains a number of key features, including the following:

- Resources will continue to be allocated on the basis of objective and verifiable data and, the funding formula used by the Funding Council will be maintained as the basis for the internal distribution within the University.

- The RAM is an income-led model, and as a result, Schools which diversify income and meet institutional targets will secure additional resources.

Distribution of Income and Direct Expenditure

The primary drivers which underpin the income distribution are teaching load (student FTEs) and research activity (results of RAE 2008 and contribution from research grants and contracts).

The funding formula applied by the relevant Higher Education funding body, in its distribution of funding for teaching and research to the University is, the basis on which income is distributed to Schools through the RAM.

Contribution to institutional Expenditure and Academic Support

As outlined above, the Schools' contribution to Academic Support is based on a 'flat' rate applied to Schools' general income as distributed through the RAM and after having "top-sliced" for a number of approved institutional budgets.

The University is currently considering a TRAC cost driver based approach to determining each Schools contribution to Academic Support.

The use of a TRAC based cost driver approach to inform the allocation of central support costs makes good sense in that each School's share of costs will be based on a measure of, or proxy of, usage as opposed to the current income based approach. Currently, those Schools that are generating high levels of income and using their resources efficiently are effectively being penalised in that they are paying more for central services.

To inform this process a modelling exercise has been undertaken using a range of TRAC based cost drivers to determine the impact this would have on each Schools allocation. The cost drivers used are outlined in Table 1.

Table 1: Central Support Costs and Cost Drivers

- Academic Support Directorate	- Allocation Basis/ Cost Driver
- Estates	- Weighted Space (Sq. Metres)
- Academic and Student Affairs and Student Plus	- Student Numbers
- Human Resources	- Staff Numbers
- Information Services	- Student / Staff Numbers
- Library Services	- Library Visits and Actual Acquisitions
- Finance, Vice-Chancellor's Office etc	- Direct Expenditure
- Research and Enterprise/Registrar's	- Research Contract Expenditure
- **Total**	-

This exercise has revealed that a cost driver approach will have a significant impact on many Schools with a general decrease in the contribution to support costs by Schools from Schools in Arts and Humanities and Social Sciences and an increase in Science and Engineering.

Senior Management has endorsed the implementation of this change in the 2011-12 RAM and the University is currently refining the methodology. Part of this process will be to incorporate any lessons learned best practice from the national TRAC RAM MIP.

Case Study 2 – Implementation of Resource Allocation and Management at University B

Introduction

For a resource allocation model to work for the organisation, it should be very clear from the outset the type of behaviour that it is trying to encourage and also conversely the behaviour it would like less of.

This is often very difficult to predict. The changes are often short lived, as at a time of changing a budgetary process everything is reviewed and when staff become used to the system, budget holders find ways round the processes to drive activity or funding in the direction of "we as a Department" rather than "we as a University".

The only solution to this is regular review of the systems with continuous improvements and small enhancements made. Communication is the key to this as then it is possible to design budgetary systems that inform, help and support the activity of the department rather than building barriers and implementing internal "taxation".

Some things to consider when thinking about which resources to allocate are that managers are often assessed on the financial performance of their department. Including costs or levies in the department's accounts that they cannot influence or control does go against this.

Issues in implementing a system of resource allocation

These are examples of different approaches to charging for space usage:

1) **Allocate out all of the costs for running the site by the amount of space a department uses**

   Under such a system, an academic department that requires lots of laboratory space will be charged more that a non-laboratory based subject that uses a central lecture block. This also means that there may be an internal market of rooms that no one really wants, but someone has to be charged for so it is allocated and then if another department uses it they want to start cross charging the levy.

   Does this really change how much the estate costs?

   Does it promote value for money?

   It does mean that all of the academic departments will be aware of the estates costs but if they are paying for it, they will want something in return by insisting it is maintained properly and to high standards.

2) **Charge for non-utilisation of space**

   An alternative might be to charge for a room that a department has booked, but they have not used. This could be done by inspecting to see the usage but could also be done by letting users police it themselves – this would rely on users reporting on non-use of space by others, which may be seen as unhelpful.

The current model employed at the University is to report all income and expenditure into the department it relates to.   Income generating areas both academic and non-academic are budgeted to make a targeted contribution to offset the overhead departments.   Additional contributions generated by a department are reviewed and strategically invested in the parts of the University that need investment, which will not always be the department that is responsible for generating the additional income.

There is, therefore, a disconnection between additional income earned and the approval to spend it. When we are in more stable economic times the University's desired enhancement to this model, to further encourage departments to generate more income, is to allow them to spend an agreed percentage of the additional income in their own department.

In summary getting it right is never easy and no one model fits all – as with the balance between centralisation and de-centralisation and the archer's paradox of aiming off centre to hit the target.

The answer may be to find the target and work backwards to the solution.

Case Study 3 – Implementation of Resource Allocation and Management at University C

Introduction

The University currently produces academic departmental profitability analyses which incorporate the allocation of central service costs to academic departments. This is done once or twice a year (forecast and outturn).

In the profitability analysis, income is based on student numbers (Full Time Equivalent) information taken from the University's student record system (via MS Excel). Fees and funding body income (HEFCE, TDA, NHS) are then allocated on a per student basis and aggregated to department level.

Expenditure is allocated based on information taken from the University's Finance system (via Excel).

Direct pay and non-pay expenditure is taken from the departmental management accounts and central service costs are allocated using a standard percentage of departmental income. This percentage is the same across all academic departments.

Project income and expenditure (Research and Other income) is ring-fenced with a standard central service charge based on the project income.

The departmental profitability reports are produced in Excel and the process currently requires a lot of manual intervention in allocating both income and expenditure.

Proposed developments:

The University is looking at an approach to use 3 or 4 key cost drivers to allocate central costs in the future, rather than the standard percentage of income. The University is planning to look at the data used in calculating TRAC to determine whether this information might be used for developing this area of its resource allocation model.

In addition, the University will also be looking into how it can integrate the production of the departmental profitability analyses into the financial management reports which are produced directly from the finance system (Agresso).

This will enable more regular reports to be produced, reduce the level of manual intervention required and allow more time to be spent on reviewing the results and carrying out more detailed analysis where necessary.

Case Study 4 – Implementation of Resource Allocation and Management at University D

Background

The institution is divided into four Colleges, each containing 6-9 departments.

Resource allocation

As part of the strategic planning process, each College is given a contribution target. This target is calculated so as to provide a margin over direct pay and direct non-pay costs, but is before the attribution of central costs. The target set differs for each College both at the relative and absolute level. Targets aim to cover the full economic cost of the College as a minimum, and the contribution level beyond that varies depending on the College's ability to generate a surplus. The total College targets combine to achieve the surplus level required by the University as a whole, in line with the University Financial Strategy.

Colleges propose plans to meet the targets. Once the plans have been approved Colleges can choose to allocate resources across their College as they see fit. Each College has a different method of allocating non-pay resource.

Income calculation

College income includes HEFCE T (allocated based on standard resource rates for each subject band) & R grants, plus HEFCE subject/initiative specific amounts, tuition fees (based on load), research funding (allocated based on parent department of staff for each project), TDA and NHS funding.   This is allocated to Colleges based on actual income.

Allocation of costs

College direct costs include all academic staff, College-specific administrative staff and non-pay costs. Central costs are included within the Full Economic Cost (fEC) calculation and include all central services and estates costs. The fEC allocation is based on TRAC drivers. TRAC data for 09/10 is being used now to inform targets for 2011/12. There may be an issue here with the lag between the year for which TRAC data is available, and the year for which targets are being set. Because TRAC data is historic cost data, it may not be an accurate reflection of future resource needs.

Case Study 5 – Implementation of Resource Allocation and Management at University E

University structure

Teaching and research are delivered within three faculties;

1. Humanities and Social Sciences
2. Medical Sciences
3. Science, Agriculture and Engineering

The faculties are groups of schools, research institutes and research centres. There are 30 of these departments and it is at this level resource allocations are made. If allocations were made at faculty level, these would still be significant resource budgets with considerable potential for cross-subsidy between departments, reducing the pressure for increased efficiency.

Allocating resources at departmental level allows the institution to focus on those departments that are using more than their allocated unit of resource, to consider why this may be the case and to take action (where appropriate) to address this.

Income allocation

The income allocation policy is that departments will receive 100% of earned income.
- Academic fees - allocated on the basis of student FTE.
- HEFCE T grant – allocated on the basis of student FTE.
- Mainstream QR – allocated on the basis of research active staff FTE (weighted by star rating).
- Charity QR – allocated on the basis of historic level of charity income.
- PGR QR – allocated on the basis of PGR student FTE.
- HEFCE specific grants – allocated directly to the departments involved in the activity.

Expenditure allocation

Central expenditure is allocated at the level of department, this covers the following;

- Central Strategic

    Items such as contingency, depreciation, budget surplus & strategic funds. These are allocated to departments on a series of drivers and do not follow the TRAC model.

- Central Services

    All central service costs are allocated on the same basis as the cost drivers applied in the TRAC model. The costs drivers are recalculated at the time of resource allocation e.g. current staff & student FTE counts.

- Estates

  Space charging is applied on the basis on the TRAC model. This involves the calculation of a rate per m² for a minimum of four room use types.
  The cost of central service space is calculated using the same method and allocated as part of the central service allocation above.

Current issues

- Application of TRAC cost drivers, pressures from department heads that allocations made by central service directors are unfair.
- Pressures from heads of departments to introduce higher degree of complexity than required for TRAC.
- Pressures from heads of departments to apply simpler drivers than used in TRAC
- Agreement on census date for driver information e.g. m², staff FTE etc.
- Pressures to factor in material events after census date e.g. a department physically relocating one month after census.

Case Study 6 – Implementation of Resource Allocation and Management at University F

Background

The University's organisation structure has Faculties with Schools under those Faculties. On its finance system, there are separate departments or cost centres for each faculty and school. Historically, costs charged to the Faculty have included the Dean, costs of central faculty administration support and some non-staff expenditure along with some income.

The institution has moved to a "Beyond Budgeting" approach to financial planning and away from the traditional budgets of old and into rolling forecasts. Finances will be monitored using a series of Key Performance Indicators (KPIs) which will link financial performance and service delivery.

With the Beyond Budgeting approach to managing finances, the coding of any income and costs to faculties has the effect of understating income and expenditure at school level and therefore skewing KPIs. KPIs are not set at faculty level, since the service delivery units teaching students and hosting research projects etc are the schools.

Allocation of Income

Student number projection data is used to forecast/ allocate HEFCE income and tuition fees to schools, using the standard HEFCE funding formula and taking account of price bandings.

QR is part allocated against strategic initiatives and the rest based on RAE performance.

Modules taught by one School but used by other Schools for their programmes (inter Faculty/ School servicing – maths is a good example of a module owned by one School and feeding into other School's programmes) is dealt with very simply. The total of module credits that they teach on behalf of each other is evaluated at band D and an adjustment made.

NHS and TDA funding are allocated directly to the Faculties earning that funding, i.e. Health and Education respectively, without top slice.

Allocation of Central Service Costs

The University has moved away from posting the costs of central services directly to Faculties and Schools, as it created an administrative process that did not add value.

Central service costs are allocated to Schools using TRAC drivers as part of the TRAC process. Having implemented Corporate Planner software for TRAC, this enables the University to create reports at Faculty and School level showing how central costs have been allocated. This is considered sufficient for its needs.

The University finance department meets with the Deans to discuss these reports together with the fEC rates for their faculties as part of our TRAC validation process. This facilitates the sharing of information to enable the University to assess reasonableness and promote understanding of the impact of drivers used within TRAC and hence also their reasonableness.

Allocation of estates costs

Whilst it is not the University's intention to post budgets and actuals to its finance system for central service costs, it is looking at how the cost of estates can be recharged. Estates costs have been separately identified from the rest of central service costs, since:

- the cost of running the estate is significant,
- the utilisation of the estate can be identified clearly without the use of drivers and
- there is a need to promote/ increase the efficient utilisation of space
- estates are already recognised as a direct cost in TRAC.

Through the Modernisation Funding, the University is investing in a new space management system to help to improve the accuracy of our space data. It intends to use information from this system along with benchmark rent and service charge rates to recharge the cost of space occupied and rooms booked through the central room bookings system to Schools. The benchmark rates that it intends to use are those available from the AUDE toolkit for sustainable estate, please refer to:

http://www.aude.ac.uk/info-centre/aude_toolkit_forsustainableestate

The benefits of this approach are:

- The net cost within estates after recharges should be zero. If it is greater than zero, then that indicates that the University's estates function is not efficient compared to standard benchmarks and action needs to be taken. If there is a net surplus, then the University is more efficient compared to benchmark data. This therefore gives the University an independent tool with which to monitor the efficiency of the estates function.

- Faculties and schools are charged for actual space used. With the "Beyond Budgeting" approach, budget holders have to manage their funds within an overall financial envelope. An awareness of estates costs is intended to promote consideration of effective use of space.

- The University is conscious that overall its estate is under-utilised outside of core weekday hours. For example, there is scope to make better use of the campus during evenings and weekends. This will need to be reviewed as the university moves forward and considers how its teaching, research and business support/ enterprise services should be delivered in future.

Allocation of Faculty Costs to Schools

Within TRAC, the University allocates the income and costs from faculties to schools as this enables it to calculate meaningful fEC rates at school level. To achieve this within TRAC, the University has taken the approach below:

Data	Re-allocation approach
Faculty Office financial data: Non core activity projects Academic staff TAS Associate lecturers and demonstrators Research assistants Technicians	Re-allocate to schools before loading into Corporate Planner, with advice from Faculty Business Manager and Faculty Accountant, as necessary

Faculty Office financial data: Core NSE Support staff pay Space	Allocate within Corporate Planner based on staff FTEs

As the Deans are realising that Key Performance Indicators will not work effectively with income and costs allocated to Faculty codes on the finance system, they are starting to develop ways to recharge them out to Schools. Several different models are emerging and so the TRAC and Management Accounting teams are now working together to devise a common approach, which will work for both management accounting and TRAC reporting purposes.

Organisation Structure and Impact

The organisation structure will have an impact on the allocation of direct and indirect income and costs, hence FEC rates and therefore benchmarking. A summary of how the structure impacts on the allocation between direct and indirect costs is shown below:

Organisation Structure	Direct Pool	Indirect Pool	Estates Pool
Faculty/ School costs	Pay –Direct Claims based lecturers and demonstrators – all to T. Research Assistants to R. PGR studentships to PGR. Academic Pay Direct Teaching from TAS direct to T. Direct Research form TAS direct to R.	Academic pay – where TAS indicates costs go to indirect/ support. Support staff Lab technicians – non lab schools Non estates related faculty NSE	Lab technicians, Non Lab technicians, Estates related faculty NSE
University's Partner Colleges		Support for T	
Research Projects	All to R. Costs and matching income of PGR students working on projects to PGR		
OSR Projects	All to O		
Short Courses & Conferences	All to NPFT, except in certain faculties, such as Health where funded by NHS		
Graduate School	To PGR pool		
Residences & Catering	All direct to O		
Directorates (central support functions) except for Estates	Income & Expenditure on externally funded projects HH,RR,TT to Direct	Rest to indirect, i.e. cost of core support activity	
Estates			All to estates
Research & Enterprise	Income & Expenditure on Project Type HH,RR,TT to Direct.	Rest to indirect	

PMS Facilities			All to estates for Medical School

Full Economic Cost (fEC), desktop and ICAM recharges are eliminated before cost pools are created.

Integration of TRAC into Planning and Costing

The University has been using fEC data from the TRAC model in spreadsheet models for costing applications for externally funded projects and academic programmes for some time. Use of spreadsheets for this purpose is not ideal, since there are inherent weaknesses relating to version control and risk of over writing data/ formulae. Agreement has been obtained to purchase Agresso Award Management and "pFACT" costing software, which integrates with it.

The pFACT tool has been developed in partnership with consultants and a group of Universities, to assist in the preparation of all research grants. The software assists in determining both the full economic cost of research projects and the price to the funder.

It is the University's intention to set pFACT up with a small number of costing templates for the main research sponsor groups and for academic programme costing. Data from TRAC relating to overheads will be loaded into the software.

In the current funding climate, with the risk that Research Council funding will become more concentrated towards the more research intensive universities, the University needs to develop its costing methodologies in relation to overheads for sponsors, such as EU Framework programmes and ERDF to maximise overhead recovery. It is anticipated that TRAC data along with the pFACT tool will be used for this.

As mentioned above, the University intend to use TRAC information from Corporate Planner to inform discussions with Deans. With the availability of data relating to central cost allocation available at school level, this could start to inform strategic decision making relating to future service provision.

Appendix B - Further Reading

Resource Allocation Models in Further and Higher Education – A compendium, CIPFA, London, second edition 2010

http://secure.cipfa.org.uk/cgi-bin/CIPFA.storefront/EN/product/PUBED022