PRACTICE INSIGHTS

The Investment Approach to Public Service Provision

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The investment approach to public service provision is now receiving considerable attention worldwide. By promoting data-intensive assessments of baseline conditions and how government action can improve on them, the approach holds the potential to transform policy development, service implementation, and program evaluation. Recently, variations on the investment approach have been applied in Australia to explore the effectiveness of specific programs in employment training, criminal justice, and infrastructure development. This article reviews the investment approach, presents a Public Investment Checklist to guide such work, and discusses three examples. It concludes by considering the implications of investment thinking for the work of policy designers and public managers.

Key words: *cost-benefit analysis*, *investment approach*, *public management*, *service provision*

Introduction

What is the investment approach to public service provision? The approach has recently been adopted and pursued with considerable vigor in New Zealand and Australia. Here, we explain this approach and why it has emerged. We then present a Public Investment Checklist that can guide work in this area. We illustrate the applicability of the investment approach using three Australian examples. We conclude this Practice Insight by considering how well placed the Australian Public Service is to implement further applications of the investment approach.

Greater Australian interest in the investment approach was boosted by a 2015 report produced by the Reference Group on Welfare Reform. Patrick McClure AO chaired the Group, which recommended that the Commonwealth Government emulate New Zealand's practice of treating social services as investments. In response, the Government has initiated such an approach to employment and social services.

By taking an investment approach to social service provision, New Zealand and Australia together are leading a paradigm shift. Governments everywhere operate with finite resources. That means any spending must be carefully considered. In the process, account must be taken of opportunity costs – that is, what services must be given up when other services are funded. The investment approach forces explicit consideration of the expected future consequences of funding specific services. In this sense, it is consistent with efforts to reduce 'the presentist bias' in democratic governance (Boston 2017). To help with decision-making, the approach involves estimating future rates of return on the dollars spent today. Not only does a particular investment need to make a positive return, it needs to

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make a return greater than that expected from any alternatives. Some consideration must also be given to the degree of risk associated with given investments. This paradigm shift in planning and implementing public service delivery is being monitored by the Organisation for Economic Cooperation and Development, which has encouraged other nations to follow suit (OECD 2014, 2016).

The Investment Approach

An investment is any service or asset bought with the expectation that it will generate future pay-offs. Investment thinking is highly relevant to public service provision, and is applicable to all areas of policy design and public management. This is how public value is identified, pursued, and attained. For example, decisions about funding schools, prisons, or roads are all decisions about public investments intended to generate public value (Mintrom 2017; Mintrom and Luetjens 2017).

The New Zealand Model

Since 2012, the New Zealand Government has applied an investment approach to managing social service programs. There were two catalysts. First, the New Zealand Government anticipated that if current policy settings were maintained, social service spending would increase significantly, while tax revenues would not. A fiscal liability existed. This led to the second insight. Namely, insurance companies and pension plans routinely use actuaries to calculate and manage future liabilities. The New Zealand Government commissioned an actuarial analysis of longitudinal data on welfare recipients and their costs to government over many years. The brief called for estimation of the future fiscal liability of how individuals falling into specific risk categories would increase that liability.

This actuarial work gave the New Zealand government a robust evidence base to guide future social service provision. Applying relevant parameter estimates, social service managers can now use knowledge of risk factors to estimate what clients are likely to cost the government over a period of years. Specific services can be targeted to individuals to help them complete high school, gain employment, and maintain financial independence. These services give the investment approach its name.

By regularly updating the actuarial modelling, the responsible agency can assess at a systems level how particular programs are contributing to reducing future fiscal liabilities (Raubal et al. 2016). The Australian government's investment approach to social services follows an identical logic as this New Zealand approach.

The New Zealand model has been summarized in a recent report by Deloitte and the New Zealand Institute of Economic Research (2016). Simon Chapple (2013) has criticised the intense focus in New Zealand on reducing fiscal liability, noting that this could create agency-level incentives potentially harming clients. Evidence from US programs suggests Chapple's concern is well-founded (see, e.g. Greenberg et al. 2009). Improving client outcomes and reducing fiscal liability can be simultaneously obtained, so long as program design occurs with both goals in mind, and safeguards are created to limit trade-offs between the goals.

The Traditional Approach

New Zealand's investment approach to social service provision owes a strong conceptual debt to traditional cost-benefit analysis. Cost-benefit analysis requires that all current and future costs and benefits of an action are summed. If the net present value, calculated by subtracting all estimated costs from all estimated benefits, is positive, then taking the action is deemed appropriate (Boardman et al. 2010).

We can interpret New Zealand's investment approach within the traditional cost-benefit framework. Consider a program called Intensive Client Support, offering intensive case management for clients with complex needs. In traditional cost-benefit terms, the costs of this program comprise all spending on it over a period of years. That spending is driven by

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how many clients are in the program, and the expected period of time each client will stay. The benefits of the program are more counter-intuitive to define. They are the estimated savings to the government through time from clients participating in this program for a set period. Traditional cost-benefit analysis would sum the stream of program costs through time, sum the stream of benefits (savings in social service spending), and calculate net present value by subtracting total costs from total benefits. If the net present value were greater than zero, the program would be judged of value. The rate of return on investment could be determined simply by dividing total net present benefits by total net present costs. Actuarial modelling can be used – and is being used – in the same way to assess the net present value of the Intensive Client Support program. This is now standard practice for all employment assistance programs currently operating in New Zealand (see Raubal et al. 2016: 49–55).

To assess the merits of a single program or 'investment', the methods used by cost-benefit analysts and actuaries are compatible. The difference is that actuarial modelling as applied in New Zealand is based on a comprehensive dataset capturing social service clients and their interactions with the universe of social service programs through time. Cost-benefit analysis is typically program-specific.

The Washington State Institute for Public Policy (WSIPP) is virtually unique in the world for consistently applying cost-benefit analysis to facilitate an investment approach to public service provision. For decades, WSIPP has focused on producing evidence-based reviews of policy effectiveness. The Institute's purpose is to identify policies and programs that can deliver better outcomes per dollar of spending. The Institute combines the amassing of evidence from evaluation studies with the conduct of cost-benefit analysis (Aos et al. 2011).

WSIPP's approach offers an excellent way to treat public services as investments, and estimate return on those investments. First, the Institute asks: What works? It seeks to answer this by systematically assessing evidence from programs already in operation elsewhere and their outcomes. It searches for studies of specific program interventions. The ideal studies contain credible evaluation designs. In this way, the Institute systematically assesses how well given programs have achieved their intended effects. Next, the Institute asks: What makes economic sense? To answer, Institute staff conduct cost-benefit analyses. They determine what activities were undertaken to produce the noted program effects, and calculates how much it would cost to replicate those activities in the state of Washington. They then calculate how much the outcomes of the program would be worth to the state's population.

WSIPP has a continuously improving economic model that is designed to provide consistent valuations of program costs and benefits so Institute staff can make fair comparisons across alternate policy options for the state. When considering comparative program costs and benefits, the Institute routinely reports the net present value of programs and their expected return on investment.

Finally, WSIPP asks: What is the risk that a program, if adopted, would not yield a positive return on investment? To answer, it explores whether a program's benefits would outweigh its costs, even if some of the Institute's estimates were wrong.

A General Approach

The investment approach combines several contributions to policy analysis and public management. There has to be an interest in enhancing public value. That provides the rationale for exploring lessons to be drawn from policies and programs already in place elsewhere. There has to be a commitment to careful specification of desired outcomes. Then the costs of achieving those outcomes in the local context can be estimated. Public services will work effectively only when their design is appropriately adapted to the contexts and the practices of targeted individuals and organisations (Mintrom and Luetjens 2016).

Here, we present a general investment approach. First, it is useful to focus on existing policies and programs. This encourages

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creative adaptation of working programs to local conditions while avoiding the fallacy that an ideal response can be found to a less-than-ideal world (Demsetz 1969). All WSIPP analyses focus on actual, working programs. Second, it is important to gather relevant evidence of how services of interest have performed to date. Good evaluations are necessary to generate such evidence. The best involve randomised controlled trials. Third, effort should be made to measure the desired effect. For example, in New Zealand, the focus is on assisting clients so that they move towards financial independence and off government benefits. Fourth, effort must be made to assess the costs and benefits of implementing the program locally. With costs and benefits estimated, the expected return on investment can be derived. The final step involves offering robust advice. We must explain how we performed our analysis, the assumptions driving it, and how changes in key assumptions change our results. Such sensitivity analysis is a standard practice in New Zealand's annual Benefit System Performance reports; it has long been a standard practice at WSIPP. Table 1 presents our Public Investment Checklist, listing these five steps along with key questions to ask at each.

Three Australian Applications

The investment approach is broadly applicable, as the following Australian examples show.

Employment Services

Governments everywhere face pressures to assist unemployed people address gaps in their

Table 1. A public investment checklist

Steps	Key questions
1. Focus on existing policies and programs	Ask: Where are existing programs we can learn from? Policy analysts might need to show how lessons for policy design can be drawn from across distinctly different contexts and policy areas.
2. Gather policy evidence	Ask: What is the best evidence we can work with? The "gold standard" in evidence-based policy development is the randomised controlled trial. But other statistical evidence can also produce valid insights.
3. Measure desired effects	Ask: How much difference do policies and programs of this kind tend to make? The more precise the answer, the greater the accuracy of the remaining analysis.
4. Assess costs and benefits in context	Ask two questions: First, how much is it likely to cost to produce the desired policy or program effect here? Second, how much value – in dollar terms – is that desired effect likely to produce here? Return on investment is estimated by dividing the sum of estimated benefits by the sum of estimated costs. (Actuarial work allows simultaneous testing of return on investment across multiple interventions and can generate long-term, aggregated estimates of their fiscal impacts.)
5. Offer robust advice	Ask: How much do our conclusions about this policy or program depend on how we have interpreted the evidence? Good advice is honest about how much confidence can be placed in the conclusions drawn from the evidence. (Return on investment estimates derived from either cost-benefit analysis or actuarial modelling, are driven by multiple assumptions; how changing those assumptions influences outcome estimates should always be explored.)

Note: Mintrom (2017) presents an extensive discussion of the five steps listed here.

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employment skills and identify appropriate work. Those pressures can become acute when broader economic conditions create high unemployment levels. Therefore, governments must both promote macroeconomic conditions that are favourable to full employment and enhance workforce capabilities. The actuarial modelling of future fiscal liability posed by unemployed individuals provides strong justification for government agencies to work with people at risk. Each service client who graduates from beneficiary to taxpayer lowers that liability.

In Australia, unemployment is higher among young people than among any other age category. The longer young people remain out of school, training, or paid work, the higher the risk they will become long-term welfare dependents. Programs that support unemployed youth enter the paid workforce represent important investments. Yet, until recently, youth unemployment has often been treated as a problem solely for the individual, and not as a structural problem. Unemployed youth have been subjected to extremely punitive job search requirements as a condition of benefits payments. The investment approach forces closer engagement with the evidence of why unemployment exists among young adults and how it can be reduced.

In the 2016 Budget, the Commonwealth Government announced the Youth Employment Package, to give young job seekers 'the employability skills and real work experience they need to get a job' (Department of Human Services 2016). The centerpiece of the package is Youth Jobs PaTH – Prepare – Trial – Hire. It is open to youth who have been receiving unemployment services for more than 6 months. Participants first receive preparatory training to strengthen their employability (Prepare). This is followed by a 4- to 12-week internship in a workplace (Trial). The expectation is that this will eventuate in stable employment (Hire).

The Youth Jobs PaTH program represents a carefully targeted investment. Its implementation is consistent with the Government's evolving investment approach to delivering employment and social services. Its design is also consistent with recent evidence on barriers to employment and what works in transitioning young people into stable paid work.

Using data from the Australian Bureau of Statistics (ABS) and the Department of Employment, Michelle Waterford (2016) compared job advertisements with skill levels of unemployed Australian youth. She identified a discrepancy between the number of advertised job vacancies, the number of people unemployed, and the skill levels of the unemployed compared with the skills employers require. Waterford suggested that 'disadvantaged job seekers could really benefit from high quality training and experience in paid work'.

Jeff Borland (2014) summarised evidence on outcomes from active labor market programs. These include efforts to actively manage cases, offer work experience, and encourage further training. Borland concluded that the most disadvantaged youth require mechanisms combining employment and training, providing a pathway to a permanent job. The consistent theme across the work of Borland and Waterford is that care must be taken to differentiate among the unemployed on the basis of their skills. Investments should be differentiated accordingly.

Criminal Justice

An on-going debate in the field of criminal justice concerns the effectiveness of imprisoning people convicted of crimes, the merits of lengthy sentences, and viable alternatives that both promote public safety and transform people convicted of crimes into productive, law-abiding citizens. High incarceration rates in the United States over recent decades have prompted initiatives to reduce the cost to government and the human cost. One initiative, termed 'justice reinvestment' has proposed a two-step process (Tucker and Cadora 2003). The first step involves working with offenders to reduce the risk of subsequent reoffending. The second involves using savings from reduced prison occupancy to strengthen public service provision in communities that have historically generated the largest number of offenders. Clearly, there are on-going issues around how violent criminals might be most effectively managed to promote public safety.

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However, in some cases there is evidence to suggest that incarceration may not be the most effective way to promote public safety. Justice reinvestment has been touted as advancing 'fiscally sound, data-driven criminal justice policies to break the cycle of recidivism, avert prison expenditures, and make communities safer' (Council of State Governments Justice Center 2010).

Since 2003, more than half of the states in the United States have participated in some aspect of justice reinvestment. While individual states may take different approaches, all follow a common strategy. First, analyse relevant data and develop policy options. Second, adopt new policies and put reinvestment strategies in place. Finally, measure the performance of any reinvestment efforts. This involves modelling options and generating evidence to support the development of diversionary programs. The notion of justice reinvestment has caught on internationally, and efforts are underway to apply it in Australia (Brown et al. 2016).

In 2009, former Social Justice Commissioner Tom Calma introduced the justice reinvestment concept in Australia. He suggested it could reduce the over-representation of Indigenous children and adults in the criminal justice system. In Australia, policy decisions that favour imprisonment have a disproportionate impact on Aboriginal and Torres Strait Islander communities. Incarceration has significant detrimental impacts on individuals as well as communities. From an economic perspective, the operations of civil and criminal justice systems incur significant cost. In addition, increased incarceration rates rarely have any effect on crime rates. Evidence around the world has demonstrated that there is no clear link between crime rates and incarceration (Tonry 2015; Travis et al. 2014). Instead of relying on overly punitive policies, justice reinvestment seeks to understand the drivers of crime and apply interventions accordingly.

The justice reinvestment approach is under development in Bourke, New South Wales. Bourke is one of the most disadvantaged localities in Australia. Aboriginal people make up just 2.2% of the general population but account for half those in juvenile detention. The estimated annual cost of incarcerating young Aboriginal people from Bourke is more than $230000 per person (Forsyth et al., 2016). The majority of crimes committed by young people in Bourke are driving offences, property offences, and breaches of bail.

In 2012, the Bourke Aboriginal Community Working Party in partnership with Just Reinvest NSW produced their justice reinvestment strategy. It aims to provide better coordinated support to vulnerable Aboriginal children and families. The first stage of the project focused on building trust between community and service providers, identifying community priorities, and collecting data on the drivers of crime. The strategy aims to quantify the costs of imprisoning people. It then seeks to estimate savings associated with potential policy changes. It takes a localised approach to public safety that targets money for intervention programs in health, education, job creation, and job training in 'high risk' communities. While the trial is on-going, this targeted approach has the potential to increase community safety whilst reducing offending and the over-reliance on imprisonment.

Public Infrastructure

In 2008, former Australian Prime Minister Kevin Rudd established Infrastructure Australia to plan, evaluate, and coordinate infrastructure projects across Australia. In 2015, Infrastructure Australia published its Australian Infrastructure Audit. This presented for the first time a baseline assessment of the direct economic contribution of infrastructure to the Australian economy.

With this baseline in place, Infrastructure Australia next prepared the Australian Infrastructure Plan (Infrastructure Australia 2016a). This called for reforms in the procurement and management of infrastructure. Significantly for our purposes, Infrastructure Australia noted 'a poorly executed cost-benefit analyis increases the likelihood that a project fails to provide the promised benefits or meet community expectations. To date, the consistency and quality of this work by government has been uneven' (p. 159). The Infrastructure Plan was accompanied

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by two further documents. The first was a report prepared by PricewaterhouseCoopers Australia (PwC), laying out the consultancy's best estimates of the value that Australia could derive from pursuing a set of reforms to infrastructure policy contained in the Australian Infrastructure Plan. PwC derived these estimates from a general equilibrium model of the Australian economy. According to PwC, if the Australian Government accepted the recommendations of Infrastructure Australia, gross domestic product (GDP) would increase above the baseline by $39.0 billion in 2040. 'On average, the package of reforms equates to increased GDP per capita of $1151 in 2040.' (PwC 2016: v). The second document accompanying the Australian Infrastructure Plan was The Infrastructure Priority List setting out projects deemed most significant to the Australian economy over the next 15 years (Infrastructure Australia 2016b).

In November 2016, the Australian Government endorsed the Australian Infrastructure Plan. Good grounds exist for believing future Australian infrastructure projects will be routinely subjected to careful assessment of their business case, using cost-benefit analyses that are consistent in their modelling assumptions. Post-completion reviews will also now be required for all large infrastructure projects. This approach to public infrastructure spending is consistent with our Public Investment Checklist presented in Table 1.

Where Next with the Investment Approach?

The investment approach summarised here represents an important addition to the set of strategies governments deploy to promote effective public sector management. Since the early 20th century, governments have faced powerful public expectations to do all they can to improve social and economic outcomes for all society, including the most vulnerable. This is why so many countries developed extensive public infrastructure systems and welfare states during the 20th century. The novelty of the investment approach is the dedication to rigorous use of evidence and consistent application of analytical tools to clearly identify the likely future consequences of specific policies and programs. It contrasts with traditional approaches to funding government activity, which have tended to focus on making gains in the short-term and less on long-term impacts.

The investment approach represents a crucial way to enhance public value as it allows policymakers to understand where and how to allocate funds and target interventions to achieve the most desirable long-term impacts. The public value focus enables governments to orient themselves to the goal of value creation. Well-informed investment decisions are guided by knowledge of how much an element of government activity will cost and what benefits are likely to result from it. Sound investment thinking always considers alternative uses of money, and the relative merits of pursuing each alternative. There is, of course, a risk that anticipated outcomes will not be secured. The complexity associated with politics, policy processes, and service delivery suggests that this risk will never be fully mitigated. The strength of the investment approach is that it prompts more disciplined and system-level government decision-making. Its requirement for more rigorous collection and analysis of evidence concerning program risks and impacts should herald more intelligent commissioning of services, and better use of government expenditure.

To be effective, the investment approach calls for sound implementation. Unfortunately, policy and program implementation is sometimes poorly executed, which can reduce the potential effectiveness of policies and programs, and cause reputational damage for governments. As well as requiring sound implementation, use of the investment approach often calls for extensive data sharing across different parts of government. This can be challenging due to the siloed nature of government agencies. It also raises various data privacy and reliability issues.

Another prerequisite for deploying the investment approach is that policy designers and public managers possess necessary skills and capabilities. Often they do not. Indeed, the initiatives reviewed here have commonly seen governments call upon private sector expertise to perform crucial data analytical work.

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The investment approach to public service provision holds much promise. To realise that promise, governments will need to upgrade their system and people capabilities. Various analytical skills are required to support effective investment thinking. Policy designers and public managers should become more familiar with sophisticated data analytic techniques, their strengths, and their limitations. They should be aware of how to commission sound program evaluations, especially those that allow for comparison of program effects among different groups of people. Such upgrading of government capabilities promises to deliver more efficient government and improved lives of citizens. These are worthy goals, well worth the effort.

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