Home Office Response to
The London School of Economics' ID Cards Cost Estimates & Alternative Blueprint

Summary:

1. The LSE's costing of the Government's proposals includes a number of inaccurate assumptions that has inflated their cost estimates.

2. The LSE alternative scheme is insecure and would facilitate the creation of multiple and false identities. It would fail to meet the growing security requirements for reliable identity documentation.

3. The LSE scheme puts the safety of personal information at risk, exposing it to less secure environments and many more less well-trained members of staff.

4. The LSE scheme would not gain public trust. It is likely to be expensive, yet would be less user-friendly and offer few benefits to society due to its security weaknesses.

5. The LSE scheme is not yet costed, is likely to be expensive and is incorrect in its few assertions regarding possible savings it would achieve.

6. The LSE scheme is contradictory and does not meet the criteria it sets itself. It identifies the problems with identity theft and fraud today, yet proposes a scheme that actually facilitates it.

7. The LSE scheme has a high risk of failure. The Home Office proposal builds on existing infrastructure and processes at the UK Passport Service and facilitates a planned and gradual rollout. The LSE scheme suggests the need for a completely new system with no clear lines of control or accountability and would not have the same ability to manage the rollout effectively.

8. The LSE scheme is based on much less consultation with key user organisations and the public than the Identity Card Programme and it frequently misrepresents the nature of the Identity Cards Scheme proposed by the Home Office. Key examples include:

    a. it claims that the Scheme allows "a full flow of information across sectors and other boundaries". This is incorrect - the verification and provision of information is strictly regulated in the Identity Cards Bill;

    b. it is claimed that the Government has not consulted widely in the development of the proposals and implied that, as a result, that they are not reliable. This is untrue – the Government has consulted with over 300 organisations and acknowledged leading universities in the field of biometrics, such as San Jose University in the US. This is of a far greater depth than the consultation panels involved in the LSE report;

    c. it is claimed that we plan to vet people's "life history and activities" in the enrolment process. This is incorrect - we are simply confirming the true existence of an identity before issuing an ID card;

    d. it suggests the Government's scheme infringes the European Convention on Human Rights and the Data Protection Act. This is incorrect and the LSE report fails to acknowledge the Government's position e.g. as set out in the Home Secretary's memorandum to the Joint Committee on Human Rights.

1. LSE Cost Assumptions

Overall, the nature of the cost information in the LSE report is vague. Many assumptions are based on the 2002 Consultation Paper "Entitlement Cards & Identity Fraud". Since this publication, the Scheme design has developed in response to Parliamentary scrutiny and extensive research into the Scheme's requirements.

However, where information behind LSE cost estimates of the Government's Identity Cards Scheme was available, we have found that a number of them are based on misguided assumptions. The LSE report refers to costing analysis conducted by Kable, a publisher, as a source for their estimates and a summary of Kable's work has been reviewed by the Identity Cards Programme and where relevant is referred to below.

LSE Claim	Government Commentary
The LSE report states that, the government is ignoring the advice from the Institution for Electrical Engineers (IEE) that "cost analysis should be based on typical outcomes of other complex projects not on stand alone estimates that invariably assume over-optimism and performance achievements".	This statement is incorrect. The Government's estimates in the Regulatory Impact Assessment include adjustments for optimism bias. In line with Treasury guidance this adjusts estimates based upon typical outcomes of complex projects. In addition the costs include allowance for contingency on operating costs. All of this was clearly stated in the RIA published on 25 May 2005.
Issuing Identity Cards: **LSE Estimate: £814m – £1994m** **LSE Assumptions:** 1. Card Life: Assume cards need to be replaced 1-2 times within 10 years 2. Population: Assume population of 67.5m 3. Change of Card: – 3% of cards issued replaced due to change of details, at £42million. 4. Card Volume Figures 5. Card Damage rate – Presumption of 10%	1. The Government has consulted a cross section of the card manufacturing industry, and the majority has indicated that a 10 year card life would be feasible. Indeed, Hong Kong's ID card is forecast to have a 10 year life. Meanwhile, Communications Electronic Security Group (CESG) has designed an electronic security scheme that will remain robust for 10 years against people trying to create forged cards. 2. The LSE extrapolate their population figures from estimates from the 2002 consultation paper, which are not consistent with the latest population projections underlying current forecasts. 3. The Government's Scheme design assumes no address on the card and uses assumptions for the rate of re-issue due to name change based on actual volumes experienced by other government departments which are lower than the LSE's estimates. 4. It is not clear from the LSE report how many cards they estimate will be issued in 10 years as there are several options discussed but no clarity about the number chosen. However, the lowest number quoted is significantly in excess of the Government's estimates. This has a significant impact upon the Governments and the LSE's estimates because document costs are a key cost driver.. 5. The passport damage and loss rate is 3%.

LSE Claim	Government Commentary
Readers for Public Sector: **LSE estimate: £291m – £317m** **LSE assumptions:** 1. Reader Life: Assume readers need to be replaced every 3 years 2. Reader Cost: The report quotes a figure of £3,000- £4,000 for readers. 3. Reader Purchase: LSE report quotes £261m for purchase of readers in low, medium and high scenarios.	1. Industry sources have indicated that card reader replacement cycles are every five years. Additionally, Kable's supporting estimates use this figure. Thus, it is confusing what LSE actually have used and meant to use. 2. This seems to confuse biometric enrolment equipment with identity card readers used as part of the verification system. Our estimate of £250-£750 is a conservative estimate for a card reader in a user organisation. The LSE projection of approx. £3,000-4,000 seems to relate to equipment used to record biometrics in an enrolment office. 3. This does not tie up directly to any of the figures published by Kable, referred to as the source of LSE costings. However, it is closest to the £265 million of their upper estimate – their lowest estimate was £142m.
Managing the National Identity System **LSE Estimate: £2261m – £5341m** **LSE Assumptions:** 1. Assume high volumes of maintenance transactions 2. The footprint check as envisaged by LSE costs £10-£20 and involves significant manual effort. 3. Assume a re-enrolment of biometrics every 5 years	1. The LSE range of estimates is based upon a different number of maintenance transactions to the volumes underpinning the Government's estimates which are based upon the Government Actuaries Department (GAD) and Office for National Statistics (ONS) data and the UK Passport Service (UKPS) and Driver & Vehicle Licensing Agency (DVLA) experience. 2. The footprint check figures in the LSE report appears to assume a manual check based upon 60,000 person years (although the report is ambiguous). The Government's anticipated processes are largely automated and thus will be at a fraction of this cost. 3. Quote from the National Physical Laboratory report "Feasibility study on the use of biometrics": "in the case of facial recognition it would seem advisable to update the templates at least every 10 years. Fingerprints and iris should be considerably more stable". Thus, we would not need to retake biometrics for the majority of citizens during the 10 year validity period of their passports.

LSE Claim	Government Commentary
Specific Other Staff Costs Over 10yrs: £1719m – £4056m 1. Significant staff costs in footprint checks 2. Assume all maintenance transactions are face-to-face	1. The LSE's presumption of a largely manually driven system has driven up staff costs. It is difficult to tell whether this is the same cost as in the managing the National Identity System. 2. LSE estimates for staffing the National Identity Register are based upon a different Scheme design where by change of personal circumstances entail a face to face meeting which is obviously a cost intensive process. The Government's own estimates are based upon a simpler and more cost effective process and total only a small fraction of the LSE estimate of £800 million- £4 billion.
Marketing Costs **LSE Estimate: £500m - £1bn**	We believe this is a significant overestimate. Our benchmarks include high profile government marketing campaigns such as: Department of Work & Pensions pensions credit campaign - £15.58m in 2003/2004 Department of Work & Pensions bank payment campaign - £25m over 3 years Department of Health tobacco education spending: £20m in 2004/2005 Due to the level of public awareness the marketing campaign is expected to cost significantly less than LSE estimate.

2. The weaknesses of the LSE 'alternative blueprint' for ID cards.

Summary:
The proposed Home Office ID Cards Scheme takes a different approach to that used in the LSE proposal – the Home Office scheme allows for a centralised identity system as opposed to a distributed identity system. As set out below, there is evidence to indicate that the Home Office approach would be more secure and less costly.

London School of Economics Alternative Blueprint	Government's Proposal
The LSE represents a "distributed" approach There is no central register. Instead, information is on the card and backed up in third party data centres, placed all around the country. User organisations can only access information on the card that is relevant to their needs. **The LSE proposal risks the security of personal information** • *Chips:* The LSE proposal would hold a significant amount of sensitive data on the chip of the card such a medical and financial records. Information on stolen card chips could be extracted, thus having **all** an individual's information on the chip constitutes a significant risk. • *Data Centres:* The distributed nature of data backups at numerous "trusted third party sites", such as post offices, banks or commercial organisations such as banks, poses a significant risk. There would be potentially thousands of data centres, giving thousands of people access to the information. There is no indication of how the LSE proposes to ensure this is secure without substantial expenditure and large scale training and vetting of staff. **The LSE proposal could be much more expensive** • *Chip Size:* The chip size required to hold all the information necessary would be very large and thus the price of the card would be much more expensive. • *Custom Readers:* The cost of customised readers that would only provide restricted access to card information depending on the user organisation would be significant. **Despite that, it would be of less use to the citizen** • *Travel*: A system which operated with minimal verification of a person's identity would be unlikely to meet International Civil Aviation Organisation standards for travel documentation.	**The Government proposes a "centralised" approach** There is one central register. User organisations can verify a very limited set of facts against the register to authenticate a person's identity and help them retrieve and manage records held on their own systems. **We propose a more secure but user-friendly card** We will be limiting the information on the card's chip, which acts instead as a means of connecting a person to their record on the National Identity Register. Neither the Register nor the card's chip will contain information such as medical or financial records. **We will provide more secure storage of your information:** Instead of allowing data to be stored in several distributed "data backup sources" operating with different levels of security controls, data storage operations will be in a small number of highly secure environments. These would be staffed by security vetted specialists who would be subject to maximum security working processes involving segregation of role and comprehensive audit trail functionality. **This approach is common sense**: For example, a bank or supermarket does not leave small amounts of cash in its tills overnight; it transfers this cash to a safe – a highly secure central environment. This is more cost-effective than making every individual till as secure as the safe. **Our approach complies with industry best practice has been recognised as more effective**: A centralised database model is recognised by leading IT, security and resilience specialists to provide the most secure and cost-effective way to administer the personal details of individuals. Requirements for the National Identity Register will comply with such industry standard best practice. The LSE model would not.

The LSE's report recognises the difficulties in establishing identity today and claims to be broadly supportive of identity cards in principle. Its consultation panels involving a number of businesses, stressed that any identity card scheme would need to "be trusted and secure" and achieve high scores on "cost, security, dependability and functionality". They noted the importance of very secure enrolment procedures, saying that "the Government **needs** to spend disproportionate effort on enrolling citizens into the National Identity Register to ensure that the content of the Register can be trusted".

Although their proposal is vague in parts, an analysis of their alternative blueprint reveals that it does not meet any of these self-selected criteria. In particular, it is highly insecure in the enrolment stages and contains several weaknesses that would permit the easy creation of multiple identities and the provision of false information. It may even facilitate an increase in identity theft and identity fraud.

As such, the LSE's alternative blueprint fails to provide any additional benefit to existing systems of proving a person's identity. It is unlikely it would gain the trust of user organisations and thus would fail to provide any of the proposed benefits of the system.

The following is an analysis of the LSE and Government proposal in terms of:

- Security
- Cost-Effectiveness
- Functionality & Benefits

	London School of Economics Alternative Blueprint	Government Proposal
Security	**The LSE proposal allows for the easy creation of multiple identities and provision of false information** • *No Biometric Check:* They propose no "one-to-many" biometric check on enrolment. Hence, there is no way to see if the person has enrolled without obtaining very strong third party corroboration which is not possible under the LSE's proposal. • *Poor Third Party Corroboration:* The LSE propose to replace a personal interview and footprint check with reliance on a wide range of approved referees, who will only be checked at random. Referees can be easily coerced or bribed (e.g. companies don't trust them for job applications) and thousands of potentially fraudulent applications would go unchecked. This is loosely based on the system UKPS wishes to replace. It offers no benefit in improving identity documentation and would see us fall behind progress being made to improve documents on an international level.	**The Government proposes a more robust system that will offer greater protection against the creation of multiple or false identities** The creation of a register of limited registrable facts where a person's record is linked to a set of unique biometrics will combat attempts to create multiple identities. Our plans to build on UKPS processes to include a personal interview and biographical footprint check on enrolment, rather than to rely on referees, will provide assurance to citizens and organisations that information on the register is correct.

	London School of Economics Alternative Blueprint	Government Proposal
Security	• *Use of Kiosks:* The proposed use of kiosks, with the facility to allow a second person into the kiosk with the applicant allows for coercion and keyboard logging to capture personal data. • *Maintenance Procedures:* The LSE proposal allows the update of information "at will" but fails to impose any need to check that updated information is correct or to prevent changes to be made under duress. • *Social Networks:* Although acknowledging the problem of corruption through social networks, the LSE proposal allows application processing and maintenance processes to be done by thousands of people across the country in public and commercial organisations instead of by a number of vetted, trained staff in a dedicated agency. • *Security of Data Centres:* Plans for storage of data would fail to provide the same level of security as the Government's proposals without incurring substantial cost. **The LSE's proposal indicate no sign of a security risk assessment** There is no indication that a professional risk assessment has been conducted. Indeed, the LSE's demand that there is complete transparency in all processes would provide valuable information on how to attack the system to organised crime, hackers. Some secrecy is required to protect the data of citizens as well as the interests of national security.	**The Government's proposal offers greater privacy in enrolment** Based on our public research, there is strong support for the enrolment model proposed by the Identity Card Programme, involving specialist staff in a secure and private environment. **The Government will provide more secure storage of personal information:** As previously mentioned, instead of allowing data to be stored in several distributed "data backup sources" operating with different levels of security controls, data storage operations will be in a small number of highly secure environments, staffed by security vetted specialists who would be subject to maximum security working processes. **The Government have been working with acknowledged security experts to ensure the Scheme will meet highest industry standards:** The programme is working with acknowledged security specialists, Communications-Electronic Security Group, National Infrastructure Security Co-ordination Centre and other organisations to ensure appropriate measures are in place to maintain a secure and resilient system. The National Identity Register will be formally security accredited in accordance with Government policy.

	London School of Economics Alternative Blueprint	Government Proposal
Cost-Effectiveness	**The LSE's proposal is not costed:** Very little evidence is provided that any serious work has been done to cost the LSE's proposal. It is extremely vague. Some of the figures provided are wrong and, given their proposal, they appear to have been naïve in considering its potential cost to the citizen and State – for example, they appear to have failed to recognise the significant costs Trusted Third Parties would incur. **Claims of possible savings in the LSE proposal are incorrect:** The report claims £1- 3bn. could be saved on maintenance costs, as it claims that no maintenance is required under the LSE solution. In reality, this is very unlikely. The maintenance costs of an efficiently administered scheme should not approach this figure. In addition, the LSE appear to believe that they will accrue very little cost from services provided by trusted third parties to citizens updating and backing up their information, which is also highly unlikely – it would be costly to both the citizen and the Government. **The LSE's proposal could be significantly more expensive:** The LSE have provided no evidence about how much their network of "trusted third parties" could cost. These are likely to be significant, especially with regard to technology, manpower and the need to provide these third parties with a return for their service. Costs would include: • Need to rent floor space for kiosks • Need to pay trusted third parties for staff time • Need to provide significantly more staff training • Need to significantly increase staff security vetting • Need to deliver a profit to trusted third parties • Need to extend security to thousands of data centres • Need to provide a much more powerful card chip • Need to use much more sophisticated readers • Increased staff times for document and referee checking • Loss of revenue from identity services checks against a central register	**The Government's plans build on planned infrastructure required for the UK Passport Service** The agency which will issue ID cards would incorporate the functions of the UK Passport service which has to build an infrastructure to incorporate certain biometric identifiers into existing identity documentation in any case. The key additional costs focus only on: • Extending the scheme beyond the 80% of people aged 16+ who will have passports in 2008 • Materials associated with the manufacture of the card • Recording, matching and storing 3 types of biometric information • Providing an on-line verification service which can validate ID cards and other identity enquiries for user organisations. The LSE system would require the development of a completely new infrastructure, which would pose a much higher risk and greater cost. **The benefits of the Government's scheme will outweigh the costs, whereas the LSE scheme will have very few benefits:** The ID Cards Programme is working with identified stakeholders who have substantial benefit to gain through the introduction of an ID cards scheme . They have indicated that the benefits are based on having trust in the information on the Register. The security weaknesses in the LSE would erode these benefits. **The Government's approach would allow a more controlled, planned rollout, reducing the risk of delivering the scheme** The rollout of ID cards will be managed by e.g. linking their issue to passport renewals. This would not be practical with a network of kiosks and third parties suggested by LSE – workflows and manpower requirements would be extremely difficult to plan. **The Government's proposals are costed** There has been a great deal of effort put into costing the proposals to allow the Government to get the best value for money during the procurement process. The LSE proposal is not costed and indeed would appear highly expensive.

	London School of Economics Alternative Blueprint	Government Proposal
Functionality & Benefits	**The LSE's proposal would offer little benefit to society:** As the LSE report recognises, confidence in the ID Cards Scheme having robust and incorruptible processes that prevent criminals from laundering their identities, or enrolling multiple or false identities, is fundamental to the delivery of many of the benefits of the scheme. The LSE scheme could not deliver this – it would add no value to existing methods of proving identity. **The LSE proposal would be less user-friendly** • *Lack of Trust:* The weakness of the LSE's enrolment process would mean very few organisations are likely to accept their card as proof of identity, placing additional burdens on the citizen to prove this in another way. • *Travel:* The card proposed would not be ICAO compliant and as a result, could not be used as a travel document in the EEA like many other national ID cards are. **The LSE proposal has customer service weaknesses** There are a number of serious weaknesses in the LSE's customer service model: • *Time Needed:* Enrolment would require three visits to a trusted third party instead of one visit to an enrolment centre. An individual would still need to undertake a completely separate enrolment for a passport. • *Special Needs:* The kiosk solution does not cater well for those with special needs or those with requirements due to their faith. • *Facilities:* The facilities would be less private and less secure compared to an enrolment centre. The Government's research shows it would not inspire public trust. • *Staff:* Staff would not be specialists – they would be bank, post office or job centre staff. It would be difficult to train them to a high standard without massive cost and they would not be focussed on this task alone. Thus customer service would suffer.	**The Government's proposal offers key benefits to society and the individual:** The Government's proposals will allow organisations to place a high degree of trust in the scheme. The security weaknesses in the LSE proposal would erode these benefits. For example: • citizens will not be given the option to update their address with several public organisations at one single source. Thus, the opportunity for better government customer service would be lost • the ability to speed up Criminal Records Bureau disclosures from 4 weeks to 3 days would be lost, with consequences for organisations employing people in positions of trust. **Our proposal would be more customer-focussed and inspire greater public trust:** The Government's ID Cards Scheme is being designed to inspire public trust and keep any burden on the citizen to a minimum: • *Track Record:* We are building the agency on the success of UKPS' track record – they have been rated top of the FDS customer satisfaction survey for large public and private organisations for the last two years • *High Standards of Service:* Specialist staff will conduct enrolment with the individual in a safe and discreet environment, where facilities to assist those with special needs will be available. Latest technology will be used to allow easy, secure maintenance of key information through a number of different channels – internet, post and telephone.

3. Inaccuracies in the LSE's analysis of the Government's proposals

LSE Claim	Government Commentary
The LSE have claimed that the Government has not consulted widely in the development of its proposals and has implied that, as a result, the proposals are not reliable	The Government has consulted very widely and have conducted in-depth research with members of the public. In total, we have consulted with over 300 public and private organisations in accordance with best practice and we continue this process. This is significantly more than the consultation involved for the LSE proposal. In addition, we have employed expert assistance in setting requirements for the Scheme, involving fellows and members of the British Computer Society, the Institute of Electrical Engineers (IEE), the Institute of Electrical and Electronics Engineers (IEEE), the Information Systems Audit and Control Association (ISACA), the International Information Systems Security Certification Consortium and CESG certified consultants. We have also consulted with leading biometric experts from globally renowned universities in the biometrics field such as San Jose and Cambridge Universities. There will also be independent assurance. The government's Biometrics Assurance Group will review biometric aspects of the Identity Cards Programme. Sir David King, the Government's Chief Scientific Adviser, will chair the Biometrics Assurance Group which is being established as a panel of internationally eminent specialists in biometrics and related technologies. In addition an Independent Assurance Panel will cover Project Management, Finance, Procurement and the other aspects of the Programme not covered by the Biometric Assurance Group. It will be chaired by Alan Hughes, a former Chief Executive of First Direct Bank.
The LSE claims that the Government plans to vet people's "life history and activities" in the enrolment process.	We have no intention of vetting a person's life history and activities. We are simply confirming the true existence of an identity before issuing an ID card- that is not the same as obtaining details about someone's life activities or their credit history.
The LSE suggests that the Identity Cards Scheme infringes of the European Convention on Human Rights (ECHR) and the Data Protection Act (DPA).	The Identity Cards Scheme and legislation is compliant with ECHR and DPA. We have published documents which set this out. We note that the LSE report did not quote the Council of Europe Commissioner for Human Rights, Mr. Alvaro Gil-Robles, who has said: "The issuing of some form of identifying document to all residents does not seem to me to be objectionable in principle, nor does the right to private life guaranteed by the Article 8 of the Convention preclude it. I carry an identity card myself and find it more useful than annoying".

Claim	Government Commentary
The LSE implies that the Government plans to use ID cards as entitlement cards	This is not the case. The ID card will be used as secure proof of identity but user organisations will use their own business rules to assess entitlement, although some pieces of verified identity information will assist that process.
The LSE implies that the Government has designed the IT architecture for the Scheme already without consultation with industry.	The Government is working to define the requirements of the IT architecture and possible reference solutions prior to procurement. To work on defining these requirements, we have employed industry experts and continue to involve consultations with a wide range of public and private organisations.
The LSE claims that the Government's scheme will allow "a full flow of information across sectors and other boundaries".	This is incorrect. Information can only be verified from the register with consent or in accordance with required identity checks for public services authorised by Parliament. Instances where information is provided without consent are strictly regulated in the Bill and will be subject to independent oversight. In addition, user organisations will be accredited and subsequently audited to ensure the proper use of information. No user organisation actually gains access to the Register to search for information – it is provided to them based on a properly authorised request. Finally, there is a criminal offence in the Bill of unauthorised disclosure of information from the Register.
The LSE alleges that public trust in the scheme is "weak".	The Government published research into attitudes regarding the Identity Card Scheme on 28 June. Conducted by Taylor Nelson Sofres (TNS) and using advanced "conjoint analysis" techniques, it showed a high degree of support for the Government's model of issuing ID cards (~70%) at costs similar to the current best estimate of the unit cost of issuing a combined passport/ID card package. In addition, the recent UK Passport Service biometric enrolment trial of 10,000 showed that the vast majority of participants reacted positively and their overall experience of the process met or exceeded their expectations.

Home Office
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