



Four years of change? Understanding the experiences of the 2002–2006 New Deal for Communities Panel

**Evidence from the New Deal for Communities Programme
Main Report**



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The findings and recommendations in this report are those of the authors and do not necessarily represent the views of the Department for Communities and Local Government.

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Executive summary

1. An introduction to the programme and the evaluation

The New Deal for Communities (NDC) Programme is one of the most important Area-Based Initiatives (ABIs) ever launched in England.

Announced in 1998, the Programme’s primary purpose is to reduce the gaps between 39 deprived neighbourhoods and the rest of the country in relation to six outcome areas. Three of these are place-based outcomes: reducing crime and fear of crime, enhancing community capacity and involvement, and improving housing and the physical environment. And three are people-based outcomes focussing on improved standards, qualifications and attitudes with regard to education, health, and worklessness. In the 39 NDC areas, each on average accommodating about 9,800 people, local NDC Partnerships are implementing approved 10 year Delivery Plans. Each Delivery Plan has attracted approximately £50m of Government investment.

In 2006 a consortium headed up by the Centre for Regional Economic and Social Research (CRESR) at Sheffield Hallam University was commissioned to undertake the 2006–2010 Phase 2 of the national evaluation. A key objective for the evaluation is to identify the impact of the Programme and the extent to which it represents ‘value for money’. The NDC evaluation is unusually well-resourced in terms of being able to measure change over time across all of the 39 NDC areas and to assess this against change in similarly deprived comparator areas. Nevertheless, there remains considerable debate about how impact should be measured and success defined.

2. Introducing the panel data

The 2002, 2004 and 2006 NDC household surveys allow change to be considered in two ways. The sample as a whole provides an insight into cross-sectional area-based change. In the main this is the type of data which has been available to most previous ABI evaluations. The NDC evaluation team has previously explored cross-sectional area-based change comparing data across all 39 NDC areas for 2006, with similar evidence for 2004 and 2002¹.

The panel element of the household surveys captures change occurring to individuals who stay in one of the 39 areas over time: ‘the NDC panel’. There are differences between the characteristics and experiences of panel

¹ CLG 2008: NDC a synthesis of new Programme-wide evidence: 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930

members and those in the whole (cross-sectional) sample. Members of the panel are more likely to be older, female and live in owner-occupied accommodation.

Because the NDC household survey is also carried out in equivalently deprived non NDC areas, it is possible to see how the NDC panel fares against the 'comparator areas panel'. Despite care in the selection of comparator areas, they differ from the NDC areas in some respects. In particular they tend to be marginally less deprived than NDC areas.

3. The NDC panel: a descriptive overview of programme-wide change

Panel members remaining in the 39 NDC areas between 2002–2006, tended to experience more positive change during this period than did the NDC population as a whole especially in relation to area and environmental improvements: 17 of 26 indicators showed statistically significant positive change. However the rate of change appeared to slow down: there was more positive change between 2002 and 2004 than in the following two years. This may be because it is not possible for individuals continuously to improve their 'scores'.

There is considerable variation across the 39 NDC areas. There is a more than 50 percentage points difference between those NDC panels showing the highest and lowest rates of change between 2002 and 2006 in relation to thinking the area had improved in the previous two years. However, there are suggestions of convergence across the 39 NDC panels through time.

Middle-aged people seem to be benefiting more than either younger or older age groups.

Descriptive statistics suggest that white people are seeing more positive gains than are either black, or more especially Asian, residents. But once panel data is controlled for individual-level socio-demographic factors (such as age and gender); many of these apparent differences between key ethnic groups are no longer statistically significant.

4. Explaining outcome change: the impact of NDC partnership characteristics

Multiple regression models identify associations between change across eight key indicators for the 39 panels, on the one hand, and a range of NDC-level variables including expenditure, intensity of activity, governance arrangements, and the number of other ABIs in each area, on the other.

In essence this analysis is designed to help explain why change varies across the 39 NDC-level panels: what happens to people in these places? Key findings include:

- expenditure specifically related to crime and community safety is a significant contributory factor in explaining different rates of change in relation to fear of crime: in NDCs which have spent more on crime and community safety a greater proportion of residents experience improvements in their fear of crime than in NDCs which have spent less
- there is a relationship between the number of other ABIs in an NDC area and improvements in the working age employment rate over time: the more ABIs in the area the greater the improvement in the employment rate from 2002–2006
- an increase in the proportion of residents who think the local NDC has improved the area is positively related to total number of board members.

5. Understanding how the NDC Programme impacts on residents: associations across outcomes

Longitudinal panel data helps unravel how outcome change occurs for individuals. In particular it indicates how, for individuals, positive change in relation to one outcome is associated with change in others. Findings include:

- improved fear of crime rates have statistically significant associations with reduced actual rates of crime, and improved dereliction, the local environment, social relations, and SF36 mental health scores
- better mental health scores are associated with improved personal health and economic circumstances, vertical trust, a reduction in both actual, and fear of, crime, and improvements to the area, its accommodation and local social relations
- better satisfaction with the area scores are associated with improvements in other place-based outcomes: lower crime rates, and improvements to the environment, quality of housing, 'community' scores, and enhanced trust in other agencies
- increases in the proportion of those who feel part of the local community are associated with improvements to the area, its accommodation and trust in local service agencies
- increases in the proportion of individuals who think the NDC has improved the area are associated with improvements to the area, the local environment, incidence of crime, and trust in other service delivery agencies
- increases in the number of individuals who think the area has improved in the last two years are associated with improvements in environmental

and crime indices, mental health, employment, trust, social relations and satisfaction with the area.

In general, when looking at the experiences of individuals:

- inter-relationships are stronger for place-based, rather than people-based outcomes; evidence emerging from across the evaluation suggests that NDC Partnerships, generally find it easier to intervene within the 'place' domain; in so doing there seems every possibility of reaping additional 'synergistic' rewards because of the mutually beneficial links across that nexus of outcomes surrounding crime, the environment, trust in local agencies, social relations, and mental health
- the two outcomes which appear to stand as outliers to this general sense of inter-connectedness are worklessness and education which have fewer relationships with other outcome areas.

6. The NDC and comparator areas' panels: contrasting experiences

Panel evidence is available not just for NDC areas but also for comparator areas: similarly deprived localities in the same local authority. A simple, unadjusted, overview of this evidence suggests that the NDC panel is seeing more in the way of positive outcome change than is the comparator areas panel. For example:

- the NDC panel saw significant improvement in 17 of 26 indicators between 2002 and 2006, the comparator areas eight; the latter saw significant deterioration in four indicators between 2002 and 2006, compared with three for the NDC panel
- of indicators that showed significant change between 2002 and 2006 for either the NDC panel, or the comparator areas panel, or both, the NDC panel saw more positive change than did the comparator areas panel for 15, and less positive change for six.

The NDC Programme, when assessed on this basis, appears to be delivering greater benefits to people in NDC areas than are experienced by people living in comparator areas.

Using panel data it is also possible to establish how individual circumstances and perceptions change through time:

- for 19 indicators there is an improvement in circumstances from 'worse' to 'better' amongst a greater proportion of individuals in NDC areas than in comparator areas
- there is a deterioration in circumstances from 'better' to 'worse' amongst a greater proportion of individuals in NDC areas than in comparator areas for 13 of the indicators.

Because longitudinal panel data also identifies what happens to every individual it is possible to assess the degree to which intensive ABIs such as NDCs lead to more positive outcomes for any one person. In absolute terms, individuals in the NDC panel see more positive outcomes than those in the comparator areas. For example:

- the highest number of indicators showing improvement for any one individual in the NDC panel was 15, compared with 13 in comparator areas
- 79 per cent of NDC panel residents experienced improvement in two or more key indicators, compared with 71 per cent in the comparator areas.

7. Understanding individual-level change: NDC and comparator areas' panels

Because data is available for every person in the two panels it is possible to adjust change data by taking into account individual-level socio-demographic differences such as age, gender and ethnicity. This is important because apparent differences between panels may actually reflect their composition rather than any underlying trends. It is, for instance, known that there are marked differences between men and women in relation to fear of crime.

There are relatively few significant differences between changes occurring to the NDC panel when assessed against changes for the comparator areas panel, after data is adjusted to take into account these individual-level socio-demographic differences:

- when looking at the whole period (2002–06), the NDC areas panel outperformed the comparator areas for three indicators: satisfaction with the area, lawlessness and dereliction, and thinking area has improved in the last two years
- for the 2002–2004 panel statistically significant differences indicating the NDC panel outperformed the comparator areas panel were only identified for six indicators: satisfaction with area, problems with lawlessness and dereliction, the local environment, and social relations, thinking the area has improved in the last two years and moving out of unemployment
- in the later two year period (2004–2006) the number of statistically significant positive differences in outcomes between the NDC panel and the comparator area panel had fallen to only one indicator: thinking the area had improved in the last two years; two indicators were significantly worse for the NDC panel: problems with the environment and vertical trust.

Models of change can also include individual-level starting position. In effect such models consider outcomes for individuals with similar levels of deprivation in 2002. This is an important adjustment because, whatever the outcome indicator, those who were more deprived in 2002 tended to make

more progress between then and 2006. This is true for individuals in both panels.

Once individual-level socio-demographic factors and also starting position are taken into account, those in the NDC panel saw significantly greater improvement than those in comparator areas for only one indicator: thinking the area has improved in the last two years. Those in the comparator areas panel saw more positive change than those in the NDC panel for:

- three indicators for the 2002–06 panel
- two indicators for the 2002–04 panel
- seven indicators for the 2004–06 panel.

In line with other research findings, evidence suggests that area effects, or whether an individual lives in either an NDC area or a comparator area, has only a limited effect on change. Over 96 per cent of variation can be explained by individual-level starting position and individual-level socio-demographics. However, even within the 3–4 per cent of variation which can be explained by area-level factors, one indicator does reveal a positive statistically significant difference between the two panels: those in NDC areas are more inclined to think the area has improved in the previous two years. NDCs were established to improve their local neighbourhood. The panel evidence is consistent in finding that those who lived in these 39 neighbourhoods for at least two years are more inclined to think the area has improved than are those who remained within the comparator areas.

Evidence of change across both panels suggests that those in, rather than not in, owner occupation see greater improvement in outcomes.

8. The NDC Panel: benefiting from NDC Partnership interventions

For the 2004 household survey the national evaluation team liaised with all 39 Partnerships to draw up a shortlist of a maximum of four named local projects. Individual-level responses were obtained in relation to some 145 projects falling into eight categories. This allows for an analysis of the degree to which those who benefited from one or more of these projects saw greater positive outcomes between 2002 and 2004 than did those who had not benefited. Change data has been modelled to take into account individual-level socio-demographics.

There are statistically significant differences in relation to outcomes achieved by beneficiaries when compared with those for non beneficiaries. These almost all indicate relative improvements for beneficiaries. For instance:

- compared with those that have not benefited, respondents benefiting from a **crime project** show significantly greater improvement in their lawlessness and dereliction and fear of crime scores

- compared with those that have not benefited, respondents benefiting from an **environment project** show significantly greater improvement in their problems with the environment and satisfaction with area scores
- compared with those that have not benefited, respondents benefiting from a **neighbourhood wardens project** show significantly greater improvement in their fear of crime and lawlessness and dereliction scores
- compared with those that have not benefited, working age respondents benefiting from an **employment project** are statistically significantly more likely to make a transition from not being in employment in 2002 to being in employment at 2004
- compared with those that have not benefited, respondents that have benefited from a **community project** are statistically significantly more likely to feel they can influence decisions that affect their local area and to be involved in a local organisation.

There are clear and positive links between interventions introduced by NDCs and positive outcome changes for 'benefiting' individuals. And in general the larger the project the larger its impact is likely to be.

9. Policy implications

Identifying change, defining success

Using panel data there are at least five ways of identifying change and hence defining success for the NDC Programme:

- when the NDC panel is explored on its own with no regard to the comparator areas panel, there are signs of positive and significant change for 17 of 26 indicators
- but change in NDC areas needs to be benchmarked against that occurring in similarly deprived comparator areas; when unadjusted change data is used, the NDC panel again appears to be seeing more positive indications of change; for instance the 2002–06 NDC panel enjoyed significant improvement against the comparator areas for 15 indicators, whereas the reverse was true for just six
- but when the relative rates of change between the two panels are adjusted to take into account individual-level socio-demographic factors, then the 2002–06 NDC panel saw statistically significant better outcomes than did the comparator areas panel in relation to just three indicators
- when in addition 'starting position' is taken into account, those constituting the comparator areas panel appear to be seeing marginally more positive outcomes than are those in the NDC areas panel
- but when two 'intra-NDC panels' are explored, those who have, or have not, benefited from Partnership interventions, then there is clear evidence that the former see more positive outcomes than do the latter.

It is not possible definitely to identify one, and only one, mechanism through which to assess 'success'. Assessing the success of neighbourhood level interventions is contested territory.

Understanding change to people in places

A number of factors help explain why some of these 39 panels appear to enjoy more positive change than do others:

- there are positive relationships between change and spend; the greater the crime related expenditure the greater the reduction in fear of crime; this is the first indication of any relationship between place-based change (housing and the environment, crime and community) and NDC expenditure; it can be seen as direct evidence of a relationship between the amount of 'effort' or intensity of intervention effected by individual NDC Partnerships and improving outcomes: it takes time for spend directly to impact on the rate of change
- there is continuing evidence of positive change being associated with the number of overlapping other ABIs; this may reflect more resources being expended and expertise directed to these 39 areas over and above NDC activity; having more ABIs may also bring greater focusing of policy on particular neighbourhoods; and unanticipated synergies may arise from having a mix of ABIs operating in the same neighbourhoods; the wider implication is that additional benefits appear to arise from grouping, rather than dispersing, area-based interventions
- there is a positive relationship between an increase in the proportion of residents thinking the local NDC has improved the area and total number of board members; having larger regeneration boards seems to generate more channels for disseminating good news back to a wider range of residents and for ensuring that in turn 'local voices' are heard at board meetings.

Understanding individual-level change

Panel data help identify individual-level associations between, and across, different outcome areas:

- there are strong and consistent relationships across that nexus of issues surrounding fear of, and actual crime, attitudes to the environment, mental health and trust in local institutions; this provides a justification for an holistic approach to ABI policy
- fewer positive relationships with other outcome areas have as yet emerged with regard to two key people-based outcomes: moving into employment and taking part in education or training.

Reflections on the rationale for ABIs

Once change is modelled to take into account individual-level socio-demographic characteristics and 'starting position' there is little to suggest that NDC panel residents enjoyed greater positive change between 2002

and 2006 than did equivalently deprived individuals in the comparator areas. It might therefore be argued if a relatively well-resourced Programme such as this cannot apparently close the gaps with similarly deprived comparator areas what is the rationale for area-based interventions?

There are three counter arguments.

i. The complexities of the counterfactual

The NDC evaluation is able to benchmark change in these 39 areas against what is happening in the comparator areas. When compared with many previous ABI evaluations this is a step change improvement in relation to defining the counterfactual (what would have happened in the absence of the Programme?). Nevertheless, it is not without its problems:

- change data covers just four years: 2002–2006; it is very likely that the relative rates of change for these two panels will not be consistent through time
- the comparator areas have, to varying degrees, received other regeneration resources: they are not ‘scientific controls’
- it is not possible to say what would have happened if neither NDCs nor comparator areas had received any support; but it can be hypothesised that because of the sheer concentration of deprived individuals in NDC areas individual-level problems would have remained as entrenched, or even worsened.

ii. Areas versus individuals

Analyses developed in this report are about change to individuals in NDC areas when assessed against change occurring to similarly deprived people in the comparator areas.

However, this is an area-based initiative. There can be no assumption that ‘success’ is best measured in relation to what happens to individuals as opposed to what happens to these areas through time. There is an argument that cross-sectional area-based data is at least as valid an approach to measuring change occurring to ABIs.

The national evaluation team has reported on area-based change on a number of occasions most recently in early 2007². This strand of work suggests that NDC areas have tended to outperform the comparator areas: they have closed the gaps. One reason why NDC areas appear to do better than do the comparators areas is that in 2002 they accommodated more deprived individuals who were in turn more likely to make progress than less deprived individuals. This ‘density of deprivation’ is hidden in individual-level analyses, but not at the area level.

² New Deal for Communities National Evaluation: An Overview of Change Data: 2006. www.neighbourhood.gov.uk/publications.asp?did=1898

Evidence from this evaluation, in line with many studies exploring variations in rates of deprivation in defined 'areas', indicates that a large proportion of variation is explained by the personal characteristics of the individuals concerned, rather than anything to do with areas per se. Given this, it is unrealistic to imagine that in just four years NDCs would have been able to introduce policies culminating in statistically significant improvements for individuals in the NDC panel, over and above what was happening to similar individuals in the comparator areas.

iii. Addressing needs in deprived areas

There are still strong arguments pointing to the value of area-based interventions. In particular they:

- may be the most sensible vehicles through which to attack high concentrations of deprived individuals in certain areas
- can create cross-cutting synergies amongst delivery services and across outcomes
- help build up professional and practice expertise on the neighbourhoods concerned
- help sustain improvements through time.

1. An introduction to the Programme and the Evaluation

The NDC Programme

- 1.1. The New Deal for Communities (NDC) Programme is one of the most important Area Based Initiatives (ABIs) ever launched in England. Announced in 1998, the Programme's primary purpose is to reduce the gaps between some 39 deprived neighbourhoods and the rest of the country. In these 39 areas, each on average accommodating about 9,800 people, local NDC Partnerships are implementing approved 10 year Delivery Plans. Each Delivery Plan has attracted approximately £50m of Government investment. This translates to an NDC average per capita investment of about £400 per annum from 1999 to 2006.
- 1.2. The Programme is based on a number of key principles:
 - the 39 NDC Partnerships are carrying out 10 year strategic programmes designed to transform these deprived neighbourhoods and to improve the lives of those living within them
 - decision-making falls within the remit of 39 Partnership Boards, consisting of agency and community representatives
 - the community is 'at the heart' of the Programme
 - in order to achieve their outcomes, the 39 Partnerships are working closely with other delivery agencies such as the police and Primary Care Trusts
 - the Programme is designed to achieve the holistic improvement of these 39 areas by improving outcomes in relation to three 'place-based' issues, crime, the community and housing and the physical environment and also three 'people-based' considerations: education, health, and worklessness.
- 1.3. These 39 areas are relatively deprived. On the basis of the 2007 Index of Multiple Deprivation, 26 NDC areas would fall in the most deprived decile of neighbourhoods, the remaining 13 in the second most deprived decile. Many of these areas show considerable population mobility. Overall about 24 per cent of all residents (around 89,000) moved either within, or out of, NDC areas between 2002 and 2004. In one NDC area that figure rose to about 52 per cent.

The National Evaluation

- 1.4. In 2001 a consortium headed up by the Centre for Regional Economic and Social Research (CRESR) at Sheffield Hallam University was commissioned to

undertake the 2001–2005 Phase 1 of a Programme-wide evaluation. This work culminated in the 2005 Interim Evaluation³. The first 2001–2005 phase of the evaluation also produced a large number of other public outputs which can be accessed via the national evaluation team’s website⁴.

- 1.5. In 2006 CRESR was commissioned to undertake Phase 2 of the national evaluation working with a similar, albeit smaller, consortium⁵. Key objectives of the evaluation include:
- identifying outcome change in the 39 NDC areas
 - establishing the proportion of change occurring over and above that occurring in other deprived neighbourhoods and which could therefore reasonably be attributed to NDC activity
 - assessing the Programme’s overall Value for Money
 - identifying good practice in relation to neighbourhood renewal.
- 1.6. The NDC Evaluation is able to look at outcome change in a number of ways:
- administrative data provides both cross-sectional and some longitudinal evidence of change⁶
 - the NDC household survey provides both cross-sectional and longitudinal data⁷
 - qualitative research in case-study areas helps in understanding how change occurs and how it is experienced⁸.

Both household survey data and administrative data are used to monitor a set of key indicators of outcome change. These can, in many instances, be contextualised and compared with national, district-level and comparator area benchmark data⁹.

The purpose of this report

- 1.7. New evidence that became available during 2006–07 has already been pulled together into a Programme-Wide synthesis¹⁰. However, much of the data

³ NRU/ODPM 2005 New Deal for Communities 2001–2005 An Interim Evaluation: Research Report 17 www.neighbourhood.gov.uk/publications.asp?did=1625

⁴ <http://extra.shu.ac.uk/ndc/>

⁵ Consortium members are: Cambridge Economic Associates, European Institute for Urban Affairs at Liverpool John Moores University, Geoff Fordham Associates, Ipsos MORI, Local Government Centre at the University of Warwick, School of Health and Related Research at the University of Sheffield, Social Disadvantage Research Centre at the University of Oxford, Shared Intelligence, and SQW

⁶ See for example: Displacement of Crime or Diffusion of Benefit: Evidence from the New Deal for Communities Programme: www.communities.gov.uk/documents/communities/pdf/737988.pdf

⁷ See for example: New Deal for Communities: A Synthesis of New Programme-Wide Evidence: 2006–07 Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930

⁸ See for example Challenges, Interventions and Change: An overview of Neighbourhood Renewal in six New Deal for Communities areas www.communities.gov.uk/documents/communities/pdf/737945.pdf; and Delivering Safer Neighbourhoods: Experiences from the New Deal for Communities Programme: www.communities.gov.uk/documents/communities/pdf/737976.pdf

⁹ For example, see CLG 2007 New Deal for Communities: a synthesis of new programme-wide evidence 2006–07

¹⁰ CLG 2007 New Deal for Communities: a synthesis of new programme-wide evidence 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930

embedded in that report, and indeed other evaluation outputs, explored change over time across the 39 NDC areas. In essence findings from the 2006 survey for all of the 39 NDC areas was compared with previous snapshots based on the 2004 and 2002 household surveys. For the sake of consistency we refer to that data as cross-sectional area-based data.

- 1.8. However, the household survey data also allows the evaluation team to consider what happens to individuals who stayed in NDC areas for at least two years: 'the NDC panel'. In addition because the household survey is also carried out in equivalently deprived non-NDC areas, it is also possible to see how the NDC panel fares against the 'comparator areas panel' (see 2.11).
- 1.9. This report is the first attempt to explore change for the NDC panel arising from the 2002, 2004 and 2006 household surveys¹¹. It provides some helpful pointers for the ongoing development of policy in relation to regeneration and renewal and some indications of issues that will need to be explored in more detail over the longer term. A further round of the household survey will be conducted in 2008 allowing for analysis of change over a longer time period. Results will be developed in the final evaluation reports arising from Phase 2 of the evaluation which will be published in 2010.

The structure of the report

- Chapter 2 introduces the household survey panel data
- Chapter 3 provides a descriptive overview of change across the Programme including variations across NDC areas, by clusters of similar Partnerships, and by the key demographic parameters of gender, age and ethnicity
- Chapter 4 uses each of the 39 panels to explain what underpins differential performance across the NDC areas: what drives change for people in places?
- Chapter 5 analyses individual-level data to explore how change in any outcome area is associated with, change in other outcome areas: what contributes to individual-level change?
- Chapter 6 brings the comparator areas panel into the analysis; this allows for a descriptive assessment of relative change between the NDC, and the comparator areas, panels
- Chapter 7 pursues this analysis further by modelling differences between the NDC and the comparator areas panels to take into account socio-demographic characteristics and starting position
- Chapter 8 identifies outcomes for those individuals benefiting from specific NDC Partnership-level projects
- Chapter 9 pulls together the key policy implications arising from this new evidence.

¹¹ However it is worth flagging up here that **administrative data** also has the potential to trace individual-level change through time; this is the case, for example, with regard to educational attainment rates for individual pupils in NDC areas and also in relation to change for those on worklessness benefits. In due course the evaluation team expects to report on analyses of these sources of panel data.

2. Introducing the panel data

2.1. This chapter explores key characteristics of, and complexities surrounding, the longitudinal panel. Four issues are examined:

- cross-sectional area and panel data: strengths and weaknesses
- household survey panel data: an overview
- two methodological complexities
- analytical methods: a brief overview.

Cross sectional area and panel data: strengths and weaknesses

2.2. The 2002, 2004 and 2006 household surveys allow change to be considered in two ways. The sample as a whole provides insights into cross-sectional area-based change. In the main this is the type of data which has been available for most previous ABI evaluations and has been the basis for the reports produced to date as part of this NDC evaluation¹². In essence all of the data for one period in time is compared with all of the data from previous surveys. Cross-sectional area data is a powerful source through which to explore change in that it:

- encompasses all of those living in particular areas at specific times: in the case of the NDC evaluation this amounts to all of those living in the 39 areas in 2002, 2004 and 2006
- identifies change through time at the area level, an important defining characteristic in that ABIs are specifically intended to improve areas.

2.3. However, within any neighbourhood there will always be a degree of population churn as people leave, or move into, the locality¹³. This has several implications for assessing change when using cross-sectional area-based data. First, this type of data will include people who may have moved into the area literally the day before the survey took place. Outcome change based on area level data will thus include the attitudes and aspirations of those who could not conceivably have been influenced by NDC activity. Second, using cross-sectional area-based data to assess change through time will involve the incorporation of responses from those living in the area at one point in time, but who subsequently leave the area within the following two years. Third, by incorporating all of those in the neighbourhood at any point in time, cross-sectional area-based data masks the true level of change occurring at the individual-level. Area-based change data often suggests that

¹² In relation to the NDC evaluation see for instance: CLG 2007 NDC National Evaluation: an overview of change data www.neighbourhood.gov.uk/publications.asp?did=1898

¹³ In 2006, 14 per cent of household survey respondents had lived in their current home for less than a year. This ranged from 5 per cent to 48 per cent across the 39 NDC areas.

only modest net changes are occurring. In practice these averaged area level figures often conceal considerable volatility at the level of the individual.

- 2.4. The panel element to the household surveys provides a different slant on assessing change than cross-sectional area-based evidence. In essence it captures change occurring to individuals who stay in the area over time. This data is not therefore 'contaminated' by the complexities of people moving into and out of these areas. In addition this group of 'stayers' has been exposed to NDC activity for at least two and up to four years. Assessing the extent to which those constituting the NDC panel report experiencing change over and above that reported by the comparator areas panel (see 2.11) is one important way of identifying that change which can plausibly be ascribed to the Programme.
- 2.5. However, there are complexities associated with panel data. In any investigation where panel members are contacted on a regular basis through time there is evidence that respondents can be influenced by their participation in previous surveys. However, as members of these panels will, at most, have been contacted on three occasions over four years, this is unlikely to be a problem here. But there is a more immediate issue: representativeness. Through time the longitudinal sample has become less representative of the overall NDC population (Table 2.1). By definition members of the panel tend to be older: they must have been resident in an NDC area for at least two, and in some cases four, years. It is also apparent that members of the panel are more likely to be female, white and in owner-occupation than is the case for the sample as a whole. The panel also contains more people with no NVQ equivalent qualifications.
- 2.6. In addition because change is assessed using two different, if complementary, approaches, it is not surprising to see variations in relation to change as measured by cross-sectional area-based data compared with change emerging from panel data (Table 2.2). For 14 out of 28 indicators panel respondents show more positive change than the sample as a whole between 2002 and 2006. However, for 12 of these 14, change for the panel was only greater than that for the sample as a whole by three percentage points or less. Indeed there were only four instances across these 28 indicators where the differential between change for the panel as opposed to the sample as a whole was more than three percentage points. Members of the panel tended to see better outcomes in relation to crime and, not surprisingly since they will all have been exposed to their local NDC for at least four years, they were also more positive about their local Partnership than was true for the sample as a whole.
- 2.7. It has to be emphasised here that ultimately area and panel data are complementary approaches to measuring change. Assessments based on cross-sectional area-based data reflect trends across areas at particular points of time. Change based on panel data shows what happens to those individuals who stay in these areas through time. Both are valuable in assessing change. There can be no assumption that one approach is intrinsically 'better' than another. It is not clear that any previous ABI

evaluation has had access to cross-sectional area, as well as panel, change data. The NDC evaluation is thus in a unique position to benefit from both. In this report the emphasis is placed on change for the NDC panel. The final evaluation reports due to be published in 2010 will employ both panel and cross-sectional area-based data in order to identify Programme-wide change.

Table 2.1: Characteristics of longitudinal and whole sample respondents: 2006

	Longitudinal	Whole Sample
Age		
16–34	18	40
Working age	70	82
Gender		
Male	39	49
Female	61	51
Ethnicity		
White	78	71
Employment		
Employment rate (a)	54	54
Education		
NVQ equivalent – None	48	38
NVQ equivalent – 4+	14	19
Household composition		
Couple, no dependent children	23	20
Couple with dependent children	18	18
Lone parent family	13	15
Single person household	33	33
Large adult household	13	15
Tenure		
Owner occupier	41	34
Social sector renter	54	54
Private renter	4	11

Source: Ipsos MORI Longitudinal panel (2002–04–06), Ipsos MORI NDC household survey
 Base: Longitudinal all respondents interviewed in 2002–2004–2006 (5,499), Whole sample (15,792); (a) working age respondents longitudinal (3,611), whole sample (11,711).

Table 2.2: Whole NDC sample and panel: change 2002–2006			
	Percentage point change 2002–06		
	Whole sample	Longitudinal	Difference (positive = longitudinal seen greater positive change)
Education			
No qualifications (a) (i)	–2.8	–2.2	–0.6
Taken part in education or training in the past year (b)	1.1	–1.0	–2.1
Need to improve basic skills (i)	–1.7	–6.0	4.3
Health			
No physical activity for at least 20 minutes (i)	0.2	2.9	–2.6
Smoke (i)	–2.9	–3.3	0.4
Health not good (i)	–2.9	–1.2	–1.7
Health worse than a year ago (i)	–2.1	1.3	–3.4
Satisfied with doctor (c)	–0.1	0.9	0.9
Crime			
Lawlessness and dereliction index, high score (i)	–15.7	–17.0	1.3
Feel unsafe after dark (i)	–10.2	–9.0	–1.1
Fear of crime index, high score (i)	–11.9	–14.8	3.0
Been a victim of at least one crime (g) (i)	–5.6	–7.9	2.3
Housing and the Physical Environment			
Satisfied with area	10.7	9.8	–0.9
Trapped (h) (i)	–0.1	–0.1	–0.1
Want to move	0.9	5.4	–4.5
Satisfied with accommodation	0.9	0.1	–0.8
Think area has improved over last 2 years (d)	19.2	18.2	–0.9
Problems with environment index, high score (i)	–8.7	–9.3	0.6
Community			
Feel part of the community	6.7	5.9	–0.8
Neighbours look out for each other	2.0	2.6	0.6
Quality of life good	4.1	1.9	–2.2
Can influence decisions that affect local area	2.5	3.0	0.6
Worklessness and Finance			
Receive benefits (i)	3.3	4.3	–1.0
Workless households (e) (i)	–2.0	–3.0	0.9
In employment/employment rate (a)	2.1	2.7	0.5
Household Income less than £200 per week (i)	–7.5	–8.1	0.6
NDC			
NDC has improved the area (f)	24.0	27.2	3.2
Involved in activities organised by NDC (f)	6.0	7.7	1.7

Source: Ipsos MORI Longitudinal panel (2002–04–06), Ipsos MORI NDC household survey

Base: All Longitudinal (5499) Whole sample 2002 (19,574) 2006 (15,792), (a) Working age Longitudinal in both years (3607) Whole sample 2002 (15158), 2006 (11711), (b) Working age & not in full time education Longitudinal in both years (3429) Whole Sample 2002 (14219) 2006 (10991), (c) Seen doctor in previous 12 months Longitudinal in both years (3994) Whole sample 2002 (15,795) 2006 (13,045), (d) Lived in area two or more years Longitudinal in both years (5029) Whole sample 2002 (16663) 2006 (13209), (e) Working age households Longitudinal in both years (3866) Whole sample 2002 (15821) 2006 (12398), (f) Heard of NDC Longitudinal in both years (3756) Whole sample 2002 (12661) 2006 (13008)

(g) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(h) Want to move but feel it is unlikely to happen.

Positive scores indicate an improvement; except (i) where negative scores indicate an improvement

Rows may not sum due to rounding

The NDC household survey panel data: an overview

2.8. In 2002, 2004 and 2006 Ipsos MORI undertook a household survey amongst NDC residents aged 16 and over. The questionnaire collects data on the Programme's key outcome areas. The focus of attention in this report is placed on core indicators covering both:

- **place-based outcomes:** crime, housing and the physical environment, and the community
- **people-based outcomes** in health, education and worklessness.

2.9. Different groupings of indicators are used to reflect the underlying rationale of the analysis involved:

- analyses developed in Chapter 3 which provide a descriptive overview of change are based on 26 core indicators taken from the 2002, 2004 and 2006 household surveys
- Chapters 4 and 5 use eight indicators, one representing each of the six outcomes and two measuring overall performance
- Chapter 6 explores differences between NDCs and comparators, using:
- the 26 indicators from Chapter 3
- an indicative list of 15 variables for which change between 2002 and 2006 could be modelled as pseudo-continuous variables
- three binary 'transition' variables (from being in, to not being in, a particular state) covering the worklessness and education themes.

2.10. Analyses developed in this report use seven indices¹⁴. These involve a synthesis across a number of separate questions in order to provide an 'overarching' index. Six are constructed from data collected as part of the 2002, 2004 and 2006 household surveys. The Board Effectiveness Index is drawn from a 2006 Survey of all 39 NDCs which focused on Partnership-level issues such as staffing, management processes and governance¹⁵. The seven indices are:

- fear of crime based on individual-level responses with regard to fear of nine separate crimes such as physical attack and burglary
- lawlessness and dereliction based on ten questions including attitudes to car crime, drug use, and teenagers hanging round in the street
- social relations based on two indicators: problems with neighbours and racial harassment
- environment based on five indicators including dogs being a nuisance and litter in the street

¹⁴ Full details of these seven indices are outlined in Appendix 1

¹⁵ The 2006 Partnership Questionnaire: A briefing note

http://extra.shu.ac.uk/ndc/downloads/reports/NDC_Partnership%20Survey%20Final%202007.pdf

- vertical trust based on trust in four local agencies: the police, the council, local schools and local health providers
 - mental health (SF 36) based on responses to five questions asking about issues such as personal happiness and how nervous an individual is
 - board effectiveness based on the attitudes of NDC Board members to eight questions such as clarity of roles and relationships with agencies.
- 2.11. The sample size for the household survey has varied from approximately 500 residents per NDC area in 2002 and 2004 to 400 in 2006. In total the survey collated responses from 19,574 residents in 2002, 19,633 in 2004 and 15,792 in 2006. Using the same design and questionnaire a survey has also been carried out in similarly deprived comparator areas. This sample is taken from 3 wards within each of the NDC local authorities. The sample size for the comparator survey has fluctuated: 2,014 interviews in 2002, 4,048 in 2004 and 3,062 in 2006.
- 2.12. One of the root problems impinging on many previous ABI evaluations is the lack of a counterfactual: what would have happened had the initiative not gone ahead? The NDC evaluation attempts to overcome this problem by benchmarking change in the 39 NDC areas against what is happening nationally, in parent local authorities, and in the comparator areas. To avoid issues of ‘contamination’ the comparator areas are not contiguous to, or overlapping with, NDC areas and had as similar an Index of Multiple Deprivation score to their matching NDC area as was possible in 2000. Benchmarking against these comparator areas allows for an assessment of change in NDCs against similarly deprived neighbourhoods in the same local authority. The degree to which NDCs see progress over and above what happens in the comparator areas is critical in identifying that change which can plausibly be attributed to the NDC Programme.
- 2.13. Nevertheless, the use of comparator areas raises two issues. First, they were chosen on the assumption that, on the basis of their IMD score in 2000, they had similar levels of deprivation as those evident in NDC areas. As is discussed in relation to the panel data for each of these two sets of areas (6.3), it is clear that NDC areas are marginally more deprived than the comparator areas. Second, it should also be appreciated that the comparator areas are not scientific ‘controls’. It is not the case that NDC areas have received all regeneration funding and the comparator areas none. The 39 NDC areas will generally have received more investment than the comparator areas¹⁶. But most if not all of the latter will have gained additional support from other ABIs. As this theme contains important lessons for appreciating the implications of much of the evidence developed in this report as a whole, it is revisited in the concluding policy overview chapter (9.11).
- 2.14. Despite the caveats outlined immediately above, it is important to emphasise the power of individual-level panel data. Analyses developed in later chapters are based on General Linear Modelling (GLM) techniques which are discussed

¹⁶ CLG 2007: NDC : a synthesis of new Programme-Wide evidence 2006–07, Research Report 39: para 1.11 www.neighbourhood.gov.uk/publications.asp?did=1930

in more detail below (2.34). These models are extremely useful because they give a much better understanding of real change. In particular they allow underlying socio-demographic characteristics to be taken into account and adjusted for (see, for example, the analysis of ethnicity and outcomes: 3.16).

- 2.15. It is known, for instance, that fear of crime tends to be higher amongst women rather than men. Despite care taken to ensure that samples are representative, higher rates of fear of crime in one area may simply reflect sampling errors (more women than men were interviewed) or population gender differences (there are more women than men living in that area). Area A may have seen a greater reduction in fear of crime than Area B but this may simply reflect the fact that more men live in, and /or have been surveyed in, Area A. Once change data is adjusted to take into account gender differences it may well be the case that the underlying rate of change is similar for both areas. In the analyses developed in this report GLM models adjust for key demographics of age, sex, and ethnicity, tenure and household composition. Other potential underlying characteristics such as qualifications, levels of worklessness, and indicators of health are not included in change models because they may actually be Programme outcomes.

Two methodological complexities

- 2.16. Two methodological complexities need to be aired here:
- which panel should be used?
 - the extent to which change should be assessed from a common starting position.

Which panel should be used?

- 2.17. The nature of the survey design means that in effect there are three overlapping panels: 2002–2004, 2004–2006, and 2002–2004–2006 (Table 2.3). The first consists of those interviewed in both 2002 and 2004. This sample consists of 10,638 NDC residents and a further 1,010 residents in the comparator areas.
- 2.18. The second panel is more complex. In 2004 the sample was refreshed by a top-up of residents to replace respondents from 2002 who have moved, or had died. In addition some of the original 2002 respondents were not contactable in 2004. They were replaced either by new residents at the same address or through a top up from a random sample of addresses in the area who had not previously been contacted. A diminution in the longitudinal sample will inevitably occur over time.
- 2.19. In 2006 interviews were carried out with as many as possible of those previously interviewed in 2002 and 2004. Again because of factors such as death or out movement it was not always possible to complete a follow up interview with the same respondent as in 2004. Additional interviews were

then completed with residents who entered the sample for the first time in 2004. This second 2004–2006 panel therefore includes:

- some people present at all three waves
- and some who were only present in 2004 and 2006.

2.20. This sample consists of 9,131 NDC, and 1,628 comparator areas, residents.

2.21. The third 2002–04–06 panel is that sub-group of respondents who were interviewed at all three waves. This ‘pure’ longitudinal sample consists of 5,499 NDC residents and a further 458 residents in the comparator areas.

Table 2.3: Panel membership over time

Panel	Individuals interviewed at:		
	Wave 1 (2002)	Wave 2 (2004)	Wave 3 (2006)
2002–2004	✓	✓	
2004–2006		✓	✓
2002–2004–2006	✓	✓	✓

2.22. In most circumstances the 2002–06 panel is the most appropriate dataset to use because this evidence is based on what happens to people who stayed in the 39 NDC areas for a longer time period. In other circumstances using one or both of the two year panels is of value because:

- as is developed in later sections of this report much of the total change for the NDC panel actually occurred between 2002 and 2004
- there are instances where it is useful to see trends through time by comparing what happened in 2002–04 with change in the following two year period.

Assessing change from a common starting position?

2.23. Analyses designed to identify change occurring within different areas through time are faced with a further conceptual conundrum: whether or not change should be assessed from a common starting position.

2.24. It can be argued that individual-level change should be assessed from a 2002 baseline. In this perspective how deprived an individual was in absolute terms in 2002 is irrelevant. The Programme-wide baseline is effectively the 2002 survey and individual-level change should be assessed from that common date. In this view whether an individual was especially disadvantaged in 2002 is irrelevant. What matters is how much change every individual made from this baseline date. Hence change in this perspective would simply involve tabulating the numbers of changes each individual made.

2.25. But there is an alternative position based on the view that where an individual ‘started off’ from in 2002 is important. Some would argue that if change is assessed solely from when an ABI began this ignores

the probability that 'current individual characteristics may in part be a consequence of past neighbourhood effects and we cannot find an individual or an individual characteristic, purged of previous period neighbourhood effects'¹⁷. Hence analysis based on the use of a common starting position, 2002, will underplay the fact that many NDC areas and their inhabitants have been disadvantaged for decades. This scale of disadvantage will have impacted on those living within the NDC areas both before, as well as after, the 2002 baseline survey.

- 2.26. But there is a more immediate issue here too. Evidence from the evaluation consistently points to the most deprived of areas, and the most deprived of individuals, making greater changes than less deprived areas and individuals. This is not surprising: there is simply more headroom for positive change. It can be relatively easy, say, to move an individual from 'very unsatisfied' on any particular indicator to, 'satisfied', but much harder to then move a 'satisfied' individual to being 'quite', or even more so, 'very', 'satisfied'. In essence the more deprived an individual the more they are likely to make progress.
- 2.27. This issue becomes especially relevant when the NDC panel is assessed against the comparator areas panel in Chapters 6 and 7. As has been flagged up above (2.13), NDC areas are more deprived than are the comparator areas. They contained more deprived individuals in 2002 who were more likely to have seen greater positive change by 2006. So there is an argument that change for the NDC panel would be 'artificially' inflated if assessed simply by tabulating the total positive 'moves' made by those in the NDC panel against those in the comparator areas panel. As a group those constituting the NDC panel have more scope to change. There is therefore a perfectly legitimate view that change should be assessed by comparing what had happened by 2006 to those who were equivalently deprived in 2002: in essence comparing like with like in 2002. In other words, starting position should be taken into account.
- 2.28. There are thus two possible options here:
- use 'un-moderated' change data on the basis that this reflects change from the effective baseline of 2002: this approach ignores the fact that more deprived people make greatest positive change
 - insert an 'absolute starting off position in 2002' variable in analyses exactly to reflect the tendency for the most deprived to make greater positive change.
- 2.29. A pragmatic approach has been adopted in this report with analyses taking into account 'starting position' where this seems appropriate. This issue has particular resonance in relation to the 'area versus individual' debate, an issue with direct implications in relation to the rationale for ABIs. As it has direct policy relevance, it is addressed in the final chapter (9.18).

¹⁷ Buck N 2001, Identifying neighbourhood effects on social exclusion, *Urban Studies* 38, 2251–2275, 2274.

Analytical methods: a brief overview

- 2.30. Finally in this chapter it is worth commenting briefly on three key analytical techniques employed in later sections of the report.
- 2.31. Simple descriptive statistics are used to explore trends to the panel through time. Chapter 3 for example uses descriptive statistics to explore change across the Programme and by demographic sub groups defined by gender, age and ethnicity. Statistical significance is identified using a McNemar test which takes into account the fact that each wave of the survey is not independent of other waves due to the very nature of this being a longitudinal survey. Throughout the report ‘significance’ means that associations are statistically significant.
- 2.32. Longitudinal data can also be used to explore change across different clusters of similar NDC areas. Previous work undertaken by the evaluation team has identified a five-fold typology of the 39 areas¹⁸. The methodology uses the baseline position for 37 indicators and was derived using a Wards hierarchical cluster analysis. Membership of each cluster was cross validated using a Principal Component Analysis which identified the key dimensions in the data and in turn fed these into a Discriminant Analysis to predict and validate group membership. Clusters show the following defining characteristics:
- cluster 1 – Low on human capital, high on fear of crime and relatively unstable
 - cluster 2 – Relatively stable, ‘working class’ with fewer entrenched problems
 - cluster 3 – London NDCs; unstable population, least deprived
 - cluster 4 – Relatively thriving NDC areas with ethnically diverse populations outside London
 - cluster 5 – Low on human capital but relatively stable with low fear of crime.
- 2.33. Cluster membership is shown in Table 2.4. Rates of change in relation to these five clusters are explored in Chapter 3 (3.7).

¹⁸ CLG 2007: NDC: a synthesis of new Programme-Wide evidence 2006–07, Research Report 39: Appendix 1. www.neighbourhood.gov.uk/publications.asp?did=1930

Table 2.4: NDC areas: a typology

Final validated group membership				
Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Liverpool	Norwich	Hackney	Bradford	Newcastle
Nottingham	Middlesbrough	Newham	Sandwell	Hull
Knowsley	Leicester	Southwark	Wolverhampton	Manchester
Doncaster	Brighton	Lewisham	Aston	Sunderland
Coventry	Bristol	Brent		Sheffield
	Walsall	Islington		Plymouth
	Southampton	Haringey		
	Salford	Fulham		
	Oldham	Lambeth		
	Rochdale	Tower Hamlets		
	Hartlepool			
	Derby			
	Kings Norton			
	Luton			

- 2.34. **General Linear Modelling (GLM)** is an extension of multiple regression modelling techniques. GL models use the difference in the levels of given indicators between two points of time as the dependent variable. GLM utilises the full power of the longitudinal nature of panel data by considering changes occurring to individuals through time. These models allow multivariate tests of significance to be employed which indicate which predictor variables are, or are not, significantly related to change. GLM models are in the main run on a combined sample of the NDC and comparator longitudinal sample. As is developed in Chapter 7, this allows a predictor variable of 'study group' to be added in. This makes it possible to identify whether or not there is any significant NDC effect: is the change occurring to those in the NDC panel significantly more, or less, than that occurring to those in the comparator areas panel?
- 2.35. The next chapter provides a descriptive overview of changes occurring to the NDC Panel at the level of the Programme as a whole, across the 39 areas, by clusters of similar NDCs, and by key socio-demographic groups.

3. The NDC panel: a descriptive overview of Programme-wide change

- 3.1. This chapter provides a descriptive overview of change occurring to the NDC longitudinal panel. It presents these findings without taking into account any of the factors discussed in Chapter 2 (e.g. socio-demographic differences and degree of deprivation at the outset). Change is explored in relation to:
- the Programme as a whole
 - variations across the 39 NDC areas
 - variations across clusters of NDCs
 - variations between demographic groups as defined by gender, age and ethnicity.

Change at the Programme-wide level

- 3.2. Analysis is based here on what happened to those constituting the ‘pure’ panel: residents remaining within these 39 NDC areas for the entire 2002 to 2006 period (Table 3.1). This evidence paints a largely positive picture:
- the panel showed positive change in relation to 21 of 26 indicators
 - for 17 of these indicators the rate of change was significant at the 5 per cent level: these 17 are spread across the main outcome areas, although there is perhaps less evidence of positive change for the NDC panel in relation to health
 - for only one indicator, the proportion of residents not undertaking at least one spell of physical activity a week, was there significant and definitively negative movement.
- 3.3. For two other indicators there is some ambiguity as to how change should be interpreted:
- there was a significant increase in the proportion of residents wanting to move; however, this may simply reflect the longitudinal nature of the panel; as they have been resident in their current address for at least four years, it might have been anticipated that the proportion wishing to move would inevitably rise because of ‘lifecycle’ factors
 - an increase in the proportion of residents receiving benefits may not be a negative outcome: it may reflect an increasing proportion of residents (re)entering the workforce and therefore becoming eligible for in-work

benefits; and/or it may also be due to NDC sponsored campaigns to increase the take up of benefits.

Table 3.1: The 2002–2006 Panel: change 2002–2006

	Percentage of residents		Percentage point change
	2006	2002–06	sig.
Education			
No qualifications (a) (h)	36.1	-2.2	0.001
Taken part in education or training in the past year (b)	21.2	-1.0	0.272
Need to improve basic skills (h)	26.3	-6.0	0.000
Health			
No physical activity for at least 20 mins (h)	11.1	2.9	0.000
Smoke (h)	33.6	-3.3	0.000
Health not good (h)	24.4	-1.2	0.059
Health worse than a year ago (h)	24.8	1.3	0.058
Satisfied with doctor (c)	86.4	0.9	0.227
Crime			
Lawlessness and dereliction index, high score (h)	13.8	-17.0	0.000
Feel unsafe after dark (h)	49.3	-9.0	0.000
Fear of crime index, high score (h)	19.7	-14.8	0.000
Been a victim of at least one crime (f) (h)	25.5	-7.9	0.000
Housing and physical environment			
Satisfied with area	72.3	9.8	0.000
Trapped (g) (h)	14.4	-0.1	0.953
Want to move (h)	35.9	5.4	0.000
Satisfied with accommodation	85.5	0.1	0.949
Think area has improved over last 2 years (d)	42.3	18.2	0.000
Problems with environment index, high score (h)	13.0	-9.3	0.000
Community			
Feel part of the community	46.6	5.9	0.000
Neighbours look out for each other	67.6	2.6	0.000
Quality of life good	80.3	1.9	0.005
Can influence decisions that affect local area	27.7	3.0	0.000
Worklessness and finance			
Receive benefits (h)	51.3	4.3	0.000
Workless households (e) (h)	37.0	-3.0	0.000
In employment (a)	54.4	2.7	0.000
Income less than £200 per week (h)	39.7	-8.1	0.000

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All (5499), (a) Working age 2002 & 2006 (3607), (b) Working age & not in full time education 2002 & 2006 (3429), (c) Seen doctor in previous 12 months 2002 & 2006 (3994), (d) Lived in area two or more years 2002 & 2006 (5029), (e) Working age households 2002 & 2006 (3866)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

Note: Change scores in bold are significant at the 5 per cent level

Positive scores indicate an improvement; except (h) where negative scores indicate an improvement

- 3.4. Although there are clear indications of positive change at the Programme-wide level, in common with findings from previous analyses of area-based data¹⁹, it appears that the rate of change is slowing down. The number of indicators revealing significant positive change for the 2002 to 2004 panel is almost double that evident for the later 2004 to 2006 panel (Table 3.2). It may well be however, this is inevitable: it is not possible for respondents consistently to increase their scores through time!

Table 3.2: The breadth of change: 2002–2004, 2004–2006 and 2002–2006

	Total		
	02–04 (a)	04–06 (b)	02–06
No. indicators showing improvement	19	20	21
No. indicators showing significant improvement	18	10	17
No. indicators showing deterioration*	7	6	5
No. indicators showing significant deterioration*	3	3	3

*Includes want to move, receive benefits.

Source: Ipsos MORI Longitudinal panel (2002–04–06), (a) 2002–04 panel, (b) 2004–06 panel

Variations across the 39 NDC areas

- 3.5. Aggregate Programme-wide statistics can conceal considerable variations at the level of individual NDC areas. Although all 39 areas are relatively deprived, the nature of disadvantage varies amongst them. It is not therefore surprising to see the degree to which change varies across the 39 areas (Table 3.3). Taking just one example, those thinking the area had improved in the previous two years. There is more than a 50 percentage points difference between the two NDC areas showing the highest and lowest rates of change between 2002 and 2006.
- 3.6. But interestingly, and perhaps predictably, there has been a degree of convergence across Partnerships through time (Table 3.4). In 2002, for example, across the 39 areas there was a 53 percentage point range in the proportion of respondents who felt that the area had improved over the last two years. This had fallen to 42 percentage points by 2006. This is likely to reflect a trend evident throughout the evaluation for the initially most deprived of NDC areas and individuals to show the greatest positive change: they have more 'room' to improve. Therefore through time their relative position across all NDC areas also improves thus leading to greater convergence across the 39.

¹⁹ CLG 2007: NDC : a synthesis of new Programme-Wide evidence 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930

Table 3.3: The 2002–2006 Panel: Change at the Partnership-level: 10 indicators showing greatest variation in rate of change

	Percentage point change 2002–06		
	NDC with least improvement	NDC with greatest improvement	NDC average
Think area has improved over last 2 years (a)	-12.9	43.5	18.2
No physical activity for at least 20 mins (d)	31.0	-5.7	2.9
Income less than £200 per week (d)	13.3	-23.3	-8.1
No qualifications (b) (d) ²⁰	19.7	-15.1	-2.2
Fear of crime index, high score (d)	-1.2	-35.2	-14.8
Satisfied with area	-8.2	25.6	9.8
Lawlessness and dereliction index, high score (d)	-1.4	-34.9	-17.0
Feel unsafe after dark (d)	4.3	-26.8	-9.0
Neighbours look out for each other	-14.9	15.3	2.6
Taken part in education or training in the past year (c)	-18.1	11.6	-1.0

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All (5499), (a) Lived in area two or more years 2002 & 2006 (5029), (b) Working age 2002 & 2006 (3607), (c) Working age & not in full time education 2002 & 2006 (3429)

Note: Positive scores indicate an improvement; except (d) where negative scores indicate an improvement

Table 3.4: The 2002–2006 Panel: Change at the Partnership-level: indicators showing greatest convergence 2002 and 2006 (percentage scores)

	2002 (per cent)			2006 (per cent)		
	NDC Min	NDC Max	Range	NDC Min	NDC Max	Range
Lawlessness and dereliction index, high score (c)	10.4	66.0	55.7	2.0	32.5	30.5
Satisfied with area	33.5	84.1	50.6	47.4	86.9	39.6
Think area has improved over last 2 years (a)	7.2	60.6	53.4	23.2	65.7	42.4
In employment (b)	27.8	75.4	47.7	33.9	73.0	39.1
Receive benefits (c)	29.8	71.4	41.6	34.3	68.1	33.8
Feel unsafe after dark (c)	40.7	78.1	37.3	37.4	68.4	31.1
Neighbours look out for each other	44.4	84.8	40.4	45.0	81.4	36.4
Health not good (c)	12.8	39.5	26.7	12.1	35.2	23.1
Satisfied with accommodation	65.7	95.9	30.2	67.0	94.0	27.0
Feel part of the community	23.8	54.7	30.9	32.5	60.4	27.9

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All (5499), (a) Lived in area two or more years 2002 & 2006 (5029), (b) Working age 2002 & 2006 (3607)

Note: Positive scores indicate an improvement; except (c) where negative scores indicate an improvement

Rows may not sum due to rounding

²⁰ This is a complex indicator of change; as would be expected the Programme-wide NDC average fell 2.2 per cent; but in 11 NDC areas there was an apparent increase in those with no qualifications though time; this perverse finding reflects issues such as people forgetting, changing their mind, or being prompted in different ways at different times in relation to 29 separate types of qualification.

Change across clusters of NDC areas

- 3.7. One issue being explored by the national evaluation team is the degree to which change varies across different clusters of similar NDC areas (2.32). Key headlines in relation to the 2006 absolute position for members of the 2002–2006 ‘pure’ panel within different clusters include (Table 3.5):
- cluster 1 (low on human capital, high on fear of crime and relatively unstable NDCs) tended to be in the worst position overall, scoring least highly on 16 indicators
 - cluster 2, which is dominated by NDCs located in ‘free-standing’ towns and cities in the Midlands and the South of England, tended to be in a better position than other clusters, scoring most highly on 12 of 26 indicators
 - cluster 3, the 10 London NDCs, shows the extent to which these areas suffer problems with housing with low rates of satisfaction with accommodation and a high proportion of people wanting to move, despite relatively high levels of area satisfaction
 - cluster 4 (relatively thriving NDC areas with ethnically diverse populations outside London) have particularly high rates of people feeling unsafe after dark and high scores given on the fear of crime index; people in these areas also tend to be less satisfied with the area
 - cluster 5 (low on human capital but relatively stable with low fear of crime) shows relatively high rates of satisfaction with the area and with accommodation and a high proportion of people thinking the area has improved over the last 2 years.

Table 3.5: The 2002–2006 Panel: absolute position by cluster 2006					
	2006 (per cent)				
	Cluster				
	1	2	3	4	5
Education					
No qualifications (a)	45.6	32.2	34.0	40.1	39.6
Taken part in education or training in the past year (b)	19.7	23.0	20.7	15.2	22.7
Need to improve basic skills	27.4	24.0	28.0	28.5	27.1
Health					
No physical activity for at least 20 mins	18.2	9.8	10.5	8.5	12.0
Smoke	43.6	35.9	24.9	23.3	40.2
Health not good	30.9	23.7	22.2	24.1	25.2
Health worse than a year ago	32.4	24.7	22.0	23.0	25.2
Satisfied with doctor (c)	85.7	87.6	84.9	83.3	88.4
Crime					
Lawlessness and dereliction index, high score	22.8	12.4	11.8	12.1	15.1
Feel unsafe after dark	53.0	51.0	46.9	49.7	45.9
Fear of crime index, high score	21.2	16.3	23.4	27.1	17.3
Been a victim of at least one crime (f)	28.4	27.4	21.2	22.1	27.2
Housing and physical environment					
Satisfied with area	64.0	74.1	72.3	66.7	77.2
Trapped (g)	17.7	12.2	19.2	14.8	10.4
Want to move	39.4	29.9	49.3	32.2	31.3
Satisfied with accommodation	86.2	90.2	75.5	89.0	85.4
Think area has improved over last 2 years (d)	39.1	40.5	45.8	40.9	45.1
Problems with environment index, high score	18.5	12.9	11.3	11.2	13.5
Community					
Feel part of the community	45.1	43.6	47.7	49.7	51.5
Neighbours look out for each other	67.5	72.7	56.8	65.7	71.7
Quality of life good	74.1	83.4	77.9	77.2	82.1
Can influence decisions that affect local area	24.4	27.7	28.2	28.1	29.0
Worklessness and finance					
Receive benefits	59.5	47.5	49.2	49.3	59.6
Workless households (e)	48.9	31.4	39.5	31.9	42.2
In employment (a)	46.5	60.8	51.7	52.8	49.1
Income less than £200 per week	51.0	35.5	37.6	41.1	44.0

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All Cluster 1 (613) Cluster 2 (2154) Cluster 3 (1270) Cluster 4 (580) Cluster 5 (882), (a) Working age 2002 & 2006 Cluster 1 (383) Cluster 2 (1367) Cluster 3 (904) Cluster 4 (377) Cluster 5 (576), (b) Working age & not in full time education 2002 & 2006 Cluster 1 (375) Cluster 2 (1320) Cluster 3 (828) Cluster 4 (354) Cluster 5 (552), (c) Seen doctor in previous 12 months 2002 & 2006 Cluster 1 (444) Cluster 2 (1559) Cluster 3 (954) Cluster 4 (425) Cluster 5 (612), (d) Lived in area two or more years 2002 & 2006 Cluster 1 (572) Cluster 2 (1983) Cluster 3 (1135) Cluster 4 (538) Cluster 5 (801), (e) Working age households 2002 & 2006 Cluster 1 (409) Cluster 2 (1481) Cluster 3 (957) Cluster 4 (411) Cluster 5 (608)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

- 3.8. Tables 3.6 and 3.7 show the extent of change for the 2002–06 panel by NDC cluster for the 26 indicators (Table 3.5) and the breadth of change (the number of indicators across which positive change is evident). Clearly the rate of change varies across these clusters. To give a flavour of these variations:
- residents in clusters 2 and 5 experienced significant improvement in 16 and 15 indicators respectively whilst residents in clusters 1 (amongst the most deprived of NDC areas) and 4 experienced significant improvement in only nine indicators
 - the cluster 1 panel revealed the greatest rate of change for the largest number of indicators: when compared with the four other clusters there were especially marked changes in relation to aspects of fear of crime, and attitudes towards the local area and its environment
 - the cluster 3 panel (drawn from the 10 London NDCs) showed significant improvement in 13 indicators, concentrated in crime and community outcomes
 - the cluster 4 panel showed significant improvement in the least number of indicators (nine); but alternatively there was no significant deterioration for any of the indicators; members of this panel made relatively limited progress in health and community outcomes
 - the panel for cluster 5 reported significant improvement fairly consistently across indicators relating to education, crime and worklessness themes; but showed the lowest overall improvement in the proportion of residents thinking the area has improved over the last two years.
- 3.9. Because panel data covers only four years, it would not be sensible to make too much of these trends. Nevertheless it is clear that there are variations across these clusters, reasons for which may well become clearer as the evaluation unfolds.

Table 3.6: The 2002–2006 Panel: change by cluster 2002–2006					
	Percentage point change 2002–06				
	Cluster				
	1	2	3	4	5
Education					
No qualifications (a) (h)	-1.5	-3.8	0.3	0.4	-4.6
Taken part in education or training in the past year (b)	0.7	1.1	-4.7	-4.0	0.2
Need to improve basic skills (h)	-9.6	-4.5	-5.0	-9.8	-6.4
Health					
No physical activity for at least 20 mins (h)	8.2	2.2	4.3	-0.7	1.4
Smoke (h)	-0.4	-4.6	-2.6	-2.0	-4.0
Health not good (h)	-3.4	0.2	-1.3	-3.8	-1.4
Health worse than a year ago (h)	0.7	2.2	0.1	-1.6	3.2
Satisfied with doctor (c)	2.6	0.7	0.7	-3.9	3.9
Crime					
Lawlessness and dereliction index, high score (h)	-24.4	-19.0	-16.4	-13.3	-10.0
Feel unsafe after dark (h)	-10.2	-8.8	-11.0	-9.3	-5.7
Fear of crime index, high score (h)	-17.7	-15.1	-15.7	-16.3	-9.9
Been a victim of at least one crime (f) (h)	-12.2	-9.3	-5.8	-8.1	-4.4
Housing and physical environment					
Satisfied with area	11.9	11.2	9.1	6.2	8.5
Trapped (g) (h)	2.4	-1.5	0.7	1.2	-0.2
Want to move (h)	8.7	3.7	8.6	2.8	4.8
Satisfied with accommodation	2.7	-0.1	0.3	2.0	-2.9
Think area has improved over last 2 years (d)	21.3	24.4	15.0	18.5	5.0
Problems with environment index, high score (h)	-13.9	-9.2	-9.3	-10.2	-6.0
Community					
Feel part of the community	4.2	5.2	8.0	3.6	7.1
Neighbours look out for each other	4.3	3.8	2.2	0.1	1.0
Quality of life good	1.9	2.2	3.0	-1.3	1.8
Can influence decisions that affect local area	3.3	3.9	3.7	-0.7	2.1
Worklessness and finance					
Receive benefits (h)	0.6	5.3	2.9	3.5	6.8
Workless households (e) (h)	-2.7	-3.3	-1.6	-2.6	-4.6
In employment (a)	2.4	1.8	1.4	4.1	5.8
Income less than £200 per week (h)	-7.9	-7.2	-6.1	-5.3	-15.3

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All Cluster 1 (613) Cluster 2 (2154) Cluster 3 (1270) Cluster 4 (580) Cluster 5 (882), (a) Working age 2002 & 2006 Cluster 1 (383) Cluster 2 (1367) Cluster 3 (904) Cluster 4 (377) Cluster 5 (576), (b) Working age & not in full time education 2002 & 2006 Cluster 1 (375) Cluster 2 (1320) Cluster 3 (828) Cluster 4 (354) Cluster 5 (552), (c) Seen doctor in previous 12 months 2002 & 2006 Cluster 1 (444) Cluster 2 (1559) Cluster 3 (954) Cluster 4 (425) Cluster 5 (612), (d) Lived in area two or more years 2002 & 2006 Cluster 1 (572) Cluster 2 (1983) Cluster 3 (1135) Cluster 4 (538) Cluster 5 (801), (e) Working age households 2002 & 2006 Cluster 1 (409) Cluster 2 (1481) Cluster 3 (957) Cluster 4 (411) Cluster 5 (608)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

Note: Change scores in bold are significant at the 5 per cent level

Positive scores indicate an improvement, except (h) where negative scores indicate an improvement

Table 3.7: Summation of outcome change by cluster: 2002–2004, 2004–2006 and 2002–2006

	Cluster 1			Cluster 2			Cluster 3			Cluster 4			Cluster 5		
	02–04 (a)	04–06 (b)	02–06	02–04 (a)	04–06 (b)	02–06	02–04 (a)	04–06 (b)	02–06	02–04 (a)	04–06 (b)	02–06	02–04 (a)	04–06 (b)	02–06
No. indicators showing improvement	19	22	21	20	19	20	21	17	19	17	13	18	19	14	21
No. indicators showing significant improvement	12	7	9	14	10	16	15	9	13	11	5	9	13	5	15
No. indicators showing deterioration	7	4	5	6	7	6	5	9	7	9	13	8	7	12	5
No. indicators showing significant deterioration	2	3	2	3	1	3	2	4	4	2	3	0	5	4	3

Source: Ipsos MORI Longitudinal panel (2002–04–06), (a) 2002–04 panel, (b) 2004–06 panel

Change by key demographic groups: gender, age and ethnicity

3.10. Panel data allows for an assessment of how change has varied across demographic groups. The first issue to be considered here is **gender**. The degree of deprivation experienced by male and female respondents across the 26 indicators is set out in Appendix 5. This shows, inter alia, large differences between men and women in relation to only relatively few indicators:

- having taken part in education or training in the past year
- feeling unsafe after dark
- fear of crime
- receipt of benefits
- employment
- low income.

3.11. Table 3.8 shows that with regard to gender, there are variations in the degree to which change has occurred for male and female respondents. The key differences are:

- men reported significant improvement in 15 indicators and significant deterioration in five

Table 3.8: The 2002–2006 Panel: change by gender 2002–2006

	Percentage point change 2002–06		
	Male	Female	NDC
Education			
No qualifications (a) (h)	1.4	-4.5	-2.2
Taken part in education or training in the past year (b)	-5.3	1.8	-1.0
Need to improve basic skills (h)	-6.5	-5.7	-6.0
Health			
No physical activity for at least 20 mins (h)	2.7	3.0	2.9
Smoke (h)	-3.3	-3.3	-3.3
Health not good (h)	-2.1	-0.6	-1.2
Health worse than a year ago (h)	2.8	0.4	1.3
Satisfied with doctor (c)	1.3	0.6	0.9
Crime			
Lawlessness and dereliction index, high score (h)	-18.3	-16.1	-17.0
Feel unsafe after dark (h)	-8.8	-9.2	-9.0
Fear of crime index, high score (h)	-10.1	-17.9	-14.8
Been a victim of at least one crime (f) (h)	-9.7	-6.7	-7.9
Housing and physical environment			
Satisfied with area	11.1	9.0	9.8
Trapped (g) (h)	-0.9	0.5	-0.1
Want to move (h)	3.7	6.5	5.4
Satisfied with accommodation	0.4	-0.2	0.1
Think area has improved over last 2 years (d)	20.7	16.6	18.2
Problems with environment index, high score (h)	-7.6	-10.4	-9.3
Community			
Feel part of the community	4.0	7.1	5.9
Neighbours look out for each other	2.6	2.7	2.6
Quality of life good	2.3	1.7	1.9
Can influence decisions that affect local area	2.9	3.1	3.0
Worklessness and finance			
Receive benefits (h)	4.4	4.3	4.3
Workless households (e) (h)	0.4	-4.9	-3.0
In employment (a)	-0.1	4.4	2.7
Income less than £200 per week (h)	-5.7	-9.6	-8.1

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All Male (2051) Female (3448), (a) Working age 2002 & 2006 Male (1337) Female (2270), (b) Working age & not in full time education 2002 & 2006 Male (1268) Female (2161), (c) Seen doctor in previous 12 months 2002 & 2006 Male (1358) Female (2636), (d) Lived in area two or more years 2002 & 2006 Male (1854) Female (3175), (e) Working age households 2002 & 2006 Male (1426) Female (2440)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

Note: Change scores in bold are significant at the 5 per cent level

Positive scores indicate an improvement, except (h) where negative scores indicate an improvement

- women reported significant improvement in 16 indicators and significant deterioration in three
 - women tended to have experienced greater positive changes than men in relation to education and worklessness outcomes in general and, specifically, in the proportion feeling part of the community and the fear of crime score
 - men tended to have experienced greater positive changes than women in relation to housing and the physical environment, with larger increases in the proportion satisfied with the area and thinking the area had improved over the last two years and a smaller rise in the proportion wanting to move
 - whilst women experienced no significant change in relation to the health outcomes 'health not good' and 'health worse than a year ago', for men health indicator change was mixed with a reduction in the proportion reporting that their health was not good, but an increase in the proportion reporting that their health was worse than a year ago.
- 3.12. In relation to outcomes for people of **different ages**, Table A5.2 in Annex 5 shows that some outcome areas are more problematic for some age groups than others. For those aged 60+, for example, health outcomes tend to be poor as does feeling unsafe after dark. Older people, however, show high rates of satisfaction with both the area and their accommodation and a much lower proportion want to move. Amongst people of this age group the fear of crime is no higher than amongst the 16–24 year olds and their scores on the lawlessness and dereliction index are low.
- 3.13. Fear of crime is highest amongst the 25–49 year olds and nearly one third of them reported being a victim or crime in 2006. Nearly half of this age group wants to move.
- 3.14. Young people (those aged 16–24) were most critical of their areas in relation to lawlessness and dereliction and were most likely to report having been a victim of crime. Very few (less than a third) felt part of the community.
- 3.15. Looking at the evidence of change across different age groups between 2002 and 2006 (Table 3.9):
- residents aged 25–49 reported significant improvement in 18 indicators, compared with 12 for both those aged 50–59 and those over 60, and nine for 16–24 year olds
 - the youngest and the oldest residents (those aged 16–24 and 60+) were the groups most likely to report a deterioration (across ten indicators respectively)
 - 16–24 year olds showed more improvement than all other age groups in nine indicators, but showed least improvement in 14 others; some of the changes for this group, such as an increase of those in employment, will reflect life course related issues in that more will inevitably have entered the labour market; but other changes, especially in relation to health, have potentially worrying implications

Table 3.9: The 2002–2006 Panel: change by age* 2002–2006

	Percentage point change 2002–06				
	16–24	25–49	50–59	60+	NDC
Education					
No qualifications (a) (h)	-10.5	-2.8	0.8	3.5	-2.2
Taken part in education or training in the past year (b)	-16.4	0.4	-1.3	-3.0	-1.0
Need to improve basic skills (h)	-9.8	-6.6	-6.7	-4.3	-6.0
Health					
No physical activity for at least 20 mins (h)	3.1	1.8	1.5	5.0	2.9
Smoke (h)	7.1	-3.9	-4.0	-3.9	-3.3
Health not good (h)	1.3	-0.9	-3.4	-1.0	-1.2
Health worse than a year ago (h)	3.6	0.8	-1.5	3.0	1.3
Satisfied with doctor (c)	-8.2	2.5	1.9	-0.3	0.9
Crime					
Lawlessness and dereliction index, high score (h)	-10.8	-16.8	-20.5	-16.3	-17.0
Feel unsafe after dark (h)	-17.7	-7.8	-7.0	-10.2	-9.0
Fear of crime index, high score (h)	-19.4	-15.3	-15.1	-13.3	-14.8
Been a victim of at least one crime (f) (h)	-1.3	-6.9	-11.5	-8.4	-7.9
Housing and physical environment					
Satisfied with area	19.0	8.4	10.4	9.9	9.8
Trapped (g) (h)	-2.8	0.8	-0.1	-0.6	-0.1
Want to move (h)	17.6	7.9	4.0	0.9	5.4
Satisfied with accommodation	-2.7	-1.6	2.6	1.4	0.1
Think area has improved over last 2 years (d)	12.5	17.5	16.4	20.9	18.2
Problems with environment index, high score (h)	-4.3	-9.4	-11.9	-8.7	-9.3
Community					
Feel part of the community	-5.5	8.8	3.9	5.0	5.9
Neighbours look out for each other	3.3	6.0	0.3	-0.5	2.6
Quality of life good	4.4	3.5	0.8	0.1	1.9
Can influence decisions that affect local area	0.2	4.1	2.3	2.5	3.0
Worklessness and finance					
Receive benefits (h)	12.1	2.7	3.9	5.3	4.3
Workless households (e) (h)	-7.7	-4.3	-1.0	2.4	-3.0
In employment (a)	19.8	3.6	-1.8	-14.8	2.7
Income less than £200 per week (h)	-6.3	-10.8	-5.7	-6.3	-8.1

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All 16–24 (208) 25–49 (2347) 50–59 (879) 60+ (2065), (a) Working age 2002 & 2006 16–24 (208) 25–49 (2347) 50–59 (879) 60+ (176), (b) Working age & not in full time education 2002 & 2006 16–24 (119) 25–49 (2264) 50–59 (870) 60+ (176), (c) Seen doctor in previous 12 months 2002 & 2006 16–24 (129) 25–49 (1612) 50–59 (647) 60+ (1606), (d) Lived in area two or more years 2002 & 2006 16–24 (168) 25–49 (2046) 50–59 (830) 60+ (1985), (e) Working age households 2002 & 2006 16–24 (208) 25–49 (2347) 50–59 (879) 60+ (433)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

Note: Change scores in bold are significant at the 5 per cent level

Positive scores indicate an improvement, except (h) where negative scores indicate an improvement

*Age of respondent in 2006

- 25–49 year olds showed perhaps most consistent improvement, outperforming at least two other age groups in 18 indicators
- across all age groups there have been markedly positive changes in relation to crime and many ‘area’ based indicators; all age groups have for instance become more satisfied with the area especially those aged 16–24
- the negative changes experienced by the 16–24 year olds across indicators such as smoking and feeling part of the community points to the potential for focusing on preventative initiatives for this age group.

3.16. There are also important variations across **major ethnic groups** (3.10):

- Asian residents tended to report poorer outcomes than other ethnic groups in 2006, scoring more highly than both white and black residents in only four indicators and scoring least highly in 13; amongst Asian residents a high proportion have no qualifications and need to improve basic skills; additionally, the experience of being a victim of crime is highest amongst Asian residents, fear of crime is high as is the proportion who feel unsafe after dark
- on the positive side, however, there appears to be a stronger sense of feeling part of the community amongst Asian residents who were also more likely to report feeling that neighbours look out for each other than residents from black or white ethnic groups
- black residents scored most highly in 12 indicators, white residents in 10; however, across some key indicators there is very little difference across ethnic groups
- black residents tended to rank most highly in:
 - education: with the lowest proportion of residents with no qualifications and the highest proportion having taken part in education or training in the last 12 months
 - crime: having the lowest average lawlessness and dereliction score and the lowest proportions reporting both feeling unsafe after dark and having been a victim of crime, and
 - health: with the lowest proportions reporting that their health was not good and that their health was worse than a year ago
 - white residents scored more highly than other major ethnic groups in relation to worklessness and personal finance, but revealed poorer health indicators especially in relation to smoking.

Table 3.10: The 2002–2006 Panel: absolute position by ethnicity 2006				
	2006 (per cent)			
	White	Asian	Black	NDC
Education				
No qualifications (a)	36.6	43.3	23.6	36.1
Taken part in education or training in the past year (b)	21.2	16.5	27.1	21.2
Need to improve basic skills	23.5	38.3	34.3	26.3
Health				
No physical activity for at least 20 mins	11.3	13.3	7.4	11.1
Smoke	38.5	14.3	19.3	33.6
Health not good	25.6	23.1	17.6	24.4
Health worse than a year ago	25.8	26.2	16.7	24.8
Satisfied with doctor (c)	87.4	79.4	86.7	86.4
Crime				
Lawlessness and dereliction index, high score	14.0	13.4	10.9	13.8
Feel unsafe after dark	50.7	49.0	38.9	49.3
Fear of crime index, high score	18.5	23.2	24.3	19.7
Been a victim of at least one crime (f)	25.9	29.0	18.3	25.5
Housing and physical environment				
Satisfied with area	71.5	71.1	80.5	72.3
Trapped (g)	13.8	15.4	18.6	14.4
Want to move	33.3	39.4	49.4	35.9
Satisfied with accommodation	87.6	81.9	74.2	85.5
Think area has improved over last 2 years (d)	39.6	50.5	53.2	42.3
Problems with environment index, high score	13.1	13.6	11.2	13.0
Community				
Feel part of the community	44.2	56.4	52.8	46.6
Neighbours look out for each other	68.6	69.9	59.4	67.6
Quality of life good	80.6	78.6	79.5	80.3
Can influence decisions that affect local area	27.0	24.7	36.5	27.7
Worklessness and finance				
Receive benefits	50.7	52.2	55.4	51.3
Workless households (e)	36.6	38.5	38.3	37.0
In employment (a)	56.2	43.3	54.4	54.4
Income less than £200 per week	40.6	29.7	41.6	39.7

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All White (4375) Asian (457) Black (608), (a) Working age 2002 & 2006 White (2729) Asian (393) Black (439), (b) Working age & not in full time education 2002 & 2006 White (2647) Asian (356) Black (387), (c) Seen doctor in previous 12 months 2002 & 2006 White (3129) Asian (348) Black (476), (d) Lived in area two or more years 2002 & 2006 White (4033) Asian (415) Black (535), (e) Working age households 2002 & 2006 White (2929) Asian (423) Black (463)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

3.17. What is more interesting than the absolute position in 2006, is the degree of change across the three major ethnic groups between 2002 and 2006 (Tables 3.11 and 3.12).

3.18. **White residents saw:**

- significant improvement in 16 indicators but significant deterioration in four; however two of these are where the 'positive' direction is ambiguous: wanting to move and receipt of benefits (see 3.3)
- improvement concentrated in the earlier period: 16 indicators showing significant improvement in 2002–04, compared with 11 in 2004–06
- fairly consistent improvement across the board, showing greater rates of change than at least one other major ethnic groups in 20 out of 26 indicators.

3.19. **Black members of the panel witnessed:**

- significant improvement in 14 indicators
- unlike other ethnic groups, more significant change in 2004–06 compared with the previous period
- more evidence of positive change than other groups in all four community based indicators.

3.20. **Asian residents saw:**

- significant improvement in the least number of indicators (11) and relatively less change than for both black and white residents for some 15 indicators
- positive change relative to other major ethnic groups in the proportion of residents in employment and also in relation to fear of crime and feeling unsafe after dark
- a deterioration in all five health indicators and a significant increase in the proportion of residents feeling trapped.

	Percentage point change 2002–06			
	White	Asian	Black	NDC
Education				
No qualifications (a) (h)	-3.0	0.4	-2.2	-2.2
Taken part in education or training in the past year (b)	-0.9	-2.0	1.2	-1.0
Need to improve basic skills (h)	-6.0	-7.7	-3.1	-6.0
Health				
No physical activity for at least 20 mins (h)	2.8	4.1	2.2	2.9
Smoke (h)	-4.0	0.7	-2.1	-3.3
Health not good (h)	-0.7	0.2	-6.4	-1.2
Health worse than a year ago (h)	2.1	2.0	-4.7	1.3
Satisfied with doctor (c)	1.5	-2.7	-0.6	0.9
Crime				
Lawlessness and dereliction index, high score (h)	-17.2	-20.1	-13.0	-17.0
Feel unsafe after dark (h)	-8.8	-11.6	-7.5	-9.0
Fear of crime index, high score (h)	-13.6	-21.8	-15.4	-14.8
Been a victim of at least one crime (f) (h)	-8.4	-5.3	-6.4	-7.9
Housing and physical environment				
Satisfied with area	10.2	6.4	10.9	9.8
Trapped (g) (h)	-0.6	4.5	-0.2	-0.1
Want to move (h)	5.5	1.5	8.3	5.4
Satisfied with accommodation	-0.4	1.9	0.4	0.1
Think area has improved over last 2 years (d)	18.0	17.2	20.8	18.2
Problems with environment index, high score (h)	-9.6	-7.6	-9.2	-9.3
Community				
Feel part of the community	5.2	5.5	10.6	5.9
Neighbours look out for each other	2.5	0.8	5.5	2.6
Quality of life good	1.4	3.1	4.5	1.9
Can influence decisions that affect local area	2.9	1.7	5.4	3.0
Worklessness and finance				
Receive benefits (h)	4.5	1.9	5.3	4.3
Workless households (e) (h)	-2.7	-0.9	-4.6	-3.0
In employment (a)	1.7	7.5	1.9	2.7
Income less than £200 per week (h)	-7.9	-7.4	-9.3	-8.1

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All White (4375) Asian (457) Black (608), (a) Working age 2002 & 2006 White (2729) Asian (393) Black (439), (b) Working age & not in full time education 2002 & 2006 White (2647) Asian (356) Black (387), (c) Seen doctor in previous 12 months 2002 & 2006 White (3129) Asian (348) Black (476), (d) Lived in area two or more years 2002 & 2006 White (4033) Asian (415) Black (535), (e) Working age households 2002 & 2006 White (2929) Asian (423) Black (463)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

Note: Change scores in bold are significant at the 5 per cent level

Positive scores indicate an improvement, except (h) where negative scores indicate an improvement

Table 3.12: Change over time by ethnicity: 2002–2004, 2004–2006 and 2002–2006

	White			Asian			Black		
	02–04 (a)	04–06 (b)	02–06	02–04 (a)	04–06 (b)	02–06	02–04 (a)	04–06 (b)	02–06
No. indicators showing improvement	19	16	20	17	12	16	22	20	22
No. indicators showing significant improvement	16	11	16	11	6	11	8	11	14
No. indicators showing deterioration	7	10	6	9	14	10	4	6	4
No. indicators showing significant deterioration	3	3	4	3	2	2	1	2	2

Source: Ipsos MORI Longitudinal panel (2002–04–06), (a) 2002–04 panel, (b) 2004–06 panel

- 3.21. This is the first time that it has been possible to assess change over four years amongst the three major ethnic group panels. Earlier exploratory analysis of change between 2002 and 2004²¹ painted a relatively positive picture for many Asian groups. The descriptive panel data presented above would tend to suggest that other ethnic groups are benefiting more than the Asian population.
- 3.22. However, it can be hypothesised that factors other than ethnicity per se may account for Asian panel members apparently seeing fewer positive outcomes than people from other major ethnic groups. For example, it is known that the age profile varies considerably across the three major ethnic groups. Asian respondents tend to be younger, with 70 per cent of the sample aged 16–49, compared with 60 per cent of black residents and only 44 per cent of white residents. This is where the power of panel data becomes apparent: modelling techniques can control for this kind of individual-level socio-demographic characteristic.
- 3.23. In this instance once change for the 2002–2006 panel is controlled for gender, household composition, tenure and age:²²
- for Asian panel members there were significantly better outcomes than for both black and white residents in reducing fear of crime and significantly better outcomes than white panel members in reducing problems with social relations (relationships with neighbours and racial harassment)
 - for both white and black panel members there were significantly better outcomes than Asian residents in relation to increases in satisfaction with the area
 - there was no significant ‘ethnicity effect’ for any of the other 11 indicators modelled for this exercise: lawlessness and dereliction, problems with the environment, vertical trust, SF36 mental health score, feeling safe walking

²¹ ODPM 2005 NDC 2001–2005: an interim evaluation; NRU Research report 17 p.241–2
www.neighbourhood.gov.uk/publications.asp?did=1625

²² Not including starting position in the model

alone after dark, feeling part of the local community, feeling people in the area are friendly, satisfaction with accommodation, satisfaction with the state of repair of accommodation, quality of life, and thinking the area has changed over the last two years.

- 3.24. This important finding shows how crucial panel data can be in revealing real rates of change. Whereas descriptive panel data suggest Asian residents as a group are benefiting less than other ethnic groups, once change data is analysed using techniques that control for underlying individual-level socio-demographic factors it becomes apparent that there is no significant 'ethnicity effect' in relation to many indicators. Where there is such an effect, Asian people see at least as many positive changes as do respondents from other ethnic groups. **This ability to control for underlying socio-demographic characteristics is central to many of the analyses developed in later chapters of this report.**

Concluding comment

- 3.25. Key headline findings in relation to this initial overview of the 2002–2006 longitudinal panel data include:
- at the Programme-wide level there is considerable evidence of positive change between 2002 and 2006, although there is also evidence that the rate of change was greater between 2002 and 2004 than in the following two year period
 - there was considerable variation in rates of change across the 39 areas, although there is also a suggestion that these are converging through time
 - there is considerable variation across the five clusters of NDC areas: it is not possible at this stage to indicate why that should be so
 - middle-aged people seem to be benefiting more than either younger or older age groups
 - descriptive statistics suggest that white people are seeing more positive gains than either black, or more especially Asian, residents
 - but once the panel data is controlled for individual-level socio-demographic factors, many of these apparent differences between key ethnic groups are no longer statistically significant.
- 3.26. This chapter has explored descriptive statistics in relation to Programme-wide changes. The next chapter examines change for each of the 39 separate NDC panels and looks at the extent to which the different rates of change across the 39 NDC areas can be explained by the different characteristics of these Partnerships and their activities.

4. Explaining outcome change: the impact of NDC Partnership characteristics

Introduction

- 4.1. The previous chapter lays out trends across the Programme as a whole, amongst key demographic groups, and across clusters of NDC areas. This chapter explores Partnership-level characteristics, such as patterns of expenditure and the size of boards, as potential determinants of change. The national evaluation team has undertaken similar analyses for cross-sectional area level change data²³. However, the focus here is on longitudinal panel data which for this exercise is the ‘pure’ 2002–06 panel. The analyses developed in this chapter are about ‘people in places’: **to what extent is it possible to identify which, if any, individual NDC Partnership characteristics and activities impact on relative change across these 39 panels?**

Approach

- 4.2. Analysis is based on seeking to explain change occurring to the 2002–2006 panel within each of the 39 NDC areas in relation to eight indicators: six spread across the Programme’s key outcomes and two overarching indicators. These indicators have been chosen as indicative of change occurring across the relevant outcome as a whole:
- **crime**: high fear of crime
 - **health**: SF 36 mental health²⁴
 - **housing and the physical environment**: satisfaction with the area
 - **community**: feeling part of the community
 - **worklessness**: working age employment rate
 - **education**: taken part in education or training in the past year (excluding those in full time education, working age population)

²³ See for example paras 4.27 to 4.29 : CLG 2007: NDC: a synthesis of new Programme-wide evidence: 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930

²⁴ See Appendix 1 Table 1.4

- **overall:**
 - thinking the local NDC has improved the area
 - thinking the area has improved in the previous two years.

4.3. Multiple regression models have been undertaken looking at associations between change for the 39 Partnership-level panels across these eight indicators, on the one hand, with range of possible explanatory variables, on the other:

- NDC-level expenditure both by theme and in total²⁵
- intensity of activity²⁶
- starting position: is the concentration of a particular problem in the area at the 2002 baseline a determinant of the level of change achieved?
- operational and process characteristics of Partnerships covering:
 - number of Partnership board members
 - number of residents on boards
 - proportion of boards members who are residents
 - number of agency representatives on boards
 - proportion of board members who are agency representatives
 - board effectiveness score²⁷
 - number of times chairs of boards changed since beginning of the Programme
 - number of times chief executives of Partnerships changed since beginning of the Programme
 - number of other ABIs in each NDC area
 - number of ABIs with which Partnerships engage ‘a lot’ or ‘a fair amount’
 - number of agencies with which Partnerships engage ‘significantly’
 - the degree to which overall agency involvement has constrained or assisted delivery.

4.4. The goodness of fit of each of the models is discussed by referring to the adjusted R^2 statistic. This indicates how well the model predicts the value of the variable it is trying to explain compared with the observed value. So given a set of known characteristics for each NDC area, the model fits a regression line: the closer to the line observations fall the better the fit of the model. If $R^2 = 1$ this indicates a perfect fit and all the observations fall exactly on the line. If $R^2 = 0$ then no linear relationship is apparent between the dependent and independent variables. It should be appreciated that the latter would

²⁵ System K expenditure data for the Programme up to 2004/05 – a log transformation is used to take account of non normal distribution of expenditure data

²⁶ The total number of projects per outcome is used; this has a non normal distribution so a log transformation of this variable has been employed.

²⁷ See Appendix 1

not necessarily mean there was no association between factors being considered and the variable being 'explained', but rather that there was no linear relationship. Another way to consider the R^2 statistic is that it indicates the proportion of variation in the dependent variable that is explained by the factors included in the model. It should be stressed here too that although some of the models developed below are statistically significant, a considerable degree of 'variation' remains unexplained.

- 4.5. Key findings are set out below for each of the eight indicators outlined in 4.2 above showing where there are positive and statistically significant associations between outcome change and the potential explanatory variables listed above and where these relationships are linear. Initially analyses use models which do not include each NDC area's starting position as a possible explanatory factor. They are then run again with this included.

Fear of crime

- 4.6. Fear of crime is the illustrative indicator in relation to crime as a whole. The percentage of respondents with a high fear of crime index (see Appendix 1) fell almost 15 percentage points for the 2002–2006 panel with falls ranging from one to thirty-five percentage points across individual NDCs.
- 4.7. Initial analysis found that expenditure specifically related to crime and community safety is a significant contributory factor in explaining change in fear of crime at the area level, being significant at the 5 per cent level. Hence on average the greater the crime-related expenditure the greater the reduction in fear of crime. This is important in that it is the first indication of any relationship between place-based change (housing and the environment, crime and community) and NDC expenditure. Previous analysis of all change data (cross-sectional area and panel data) has shown a relationship between spend and all people-based outcomes (education, worklessness and health)²⁸, but this is the first time such a relationship has occurred with regard to place. In essence it can be seen as direct evidence of a relationship between the amount of 'effort' or intensity of intervention effected by Partnerships and improving outcomes. The goodness of fit of the model indicates that crime expenditure explains 12 per cent of the variation in reducing fear of crime.
- 4.8. The model was further refined by introducing starting position (NDC-level fear of crime score in 2002) as a potential determinant of levels of change. When this is done starting position is also a significant factor in explaining change. However even then crime theme expenditure still remains a significant predictor of change in fear of crime. This model has an adjusted R^2 of 0.42 thus explaining just over 40 per cent of the variation in change. This suggests that, on average, panels in NDC areas with high levels of fear of crime in the early stages of the Programme were those most likely to see greater reductions over time. But this effect is also magnified by increasing levels of crime expenditure locally.

²⁸ CLG 2007: NDC: a synthesis of new Programme-wide evidence: 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930 Para 4.6

SF 36 mental health

- 4.9. In relation to health the key indicator is SF 36 mental health. This is a good overall indicator of health since it is based on five ‘subsidiary’ questions relating to individual well-being (see Appendix 1) and there are statistically significant relationships with other indicators of health²⁹. In addition, its larger pseudo-continuous range makes it particularly appropriate to use for statistical modelling. Changes in average SF 36 Mental Health score between 2002 and 2006 range from a decrease of 4.1 units to an increase of 6.2 units across the 39 individual NDCs³⁰.
- 4.10. The initial model explores relationships between the 2002–2006 panel and SF 36 mental health, but does not include the starting position for each NDC area. This shows that there is a significant positive relationship (at a 5 per cent level) between health and the proportion of agency representatives on the NDC board³¹. The proportion of agency representatives explains 8 per cent of the variation in average SF 36 mental health score change. On average a higher proportion of agency representatives on the NDC board is associated with greater positive change in average SF 36 mental health scores.
- 4.11. When prevailing average SF 36 mental health scores in the 39 areas at the start of the Programme is included in the model this becomes the only significant predictor of change. A worse average SF 36 mental health score in the first period is associated with greater positive change (significant at a 1 per cent level). Previous score explains 25 per cent of the variation in average SF 36 mental health score change at the NDC-level.

Satisfaction with the area

- 4.12. For housing and the physical environment the key indicator is satisfaction with the area. Individual NDC panels have seen changes in the proportions satisfied with the area ranging from an 8.2 percentage points decrease to a 25.6 percentage points increase 2002–2006.
- 4.13. Initial analysis which does not take starting position into account does not identify any significant factors in predicting change in levels of satisfaction with the area. When starting position is added into to the model however:
- starting position is significant at the 1 per cent level
 - the adjusted R^2 of 0.33 indicates that this factor alone explains a third of Partnership-level variations in relation to changing levels of satisfaction.

²⁹ For instance lower SF scores are significantly related to respondents feeling their health has been not good; respondents who feel their health is worse than a year ago; and respondents with a limiting long-standing illness, disability or infirmity.

³⁰ The SF 36 Mental Health score is based on a scale from 1 to 100

³¹ Agency representation on the partnership board varies from 15 per cent to 88 per cent according to the 2006 Partnership Survey

- 4.14. In essence the model indicates that on average panels in NDC areas with the lowest rates of satisfaction with their area in 2002 were most likely to see greatest improvement over time.

The community dimension

- 4.15. For the community dimension the key indicator is feeling part of the community. Change on this indicator ranges from an 8.1 percentage point decrease to a 21.4 percentage point increase for individual NDC panels. As with satisfaction with the area, the initial analysis identifies no factors associated with change in the proportion of respondents feeling part of the community.
- 4.16. However, once starting position is included it does become a significant factor in explaining change at the area level, being significant at the 1 per cent level. 43 per cent of the variation in change in feeling part of the community is explained by this factor. On average panels in those areas with the lowest levels of residents feeling part of the community in 2002 were those most likely to see greatest improvement over time and vice versa.

Worklessness

- 4.17. For worklessness the key indicator is working age employment rate.
- 4.18. Initial analysis which does not incorporate starting position is interesting in that it identifies a relationship between the number of other ABIs in an NDC area and improvements in the working age employment rate over time:
- on average the more ABIs in the area the greater the improvement in the employment rate from 2002–2006
 - this is significant at the 1 per cent level
 - the model explains 17 per cent of the variation in change achieved.
- 4.19. This finding confirms earlier evidence based on cross-sectional area-based data.³² Positive relationships appear to be emerging between change and the existence of other overlapping ABIs. That may be because, in this instance of worklessness, other agencies are also tackling non-employment and in so doing are directing additional resources and expertise into NDC areas. It may also be that having more ABIs addressing issues of worklessness helps create a kind of 'value-added' effect: the sum of worklessness agencies as a whole is greater than their individual contributions might suggest. It may be too that one particular type of non-NDC ABI is having an especially significant role in helping to reduce worklessness. If this is the case, NDCs accommodating such an ABI may be doing better than others in addressing

³² CLG 2007: NDC: a synthesis of new Programme-wide evidence: 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930 Para 4.27

worklessness. At this stage the national evaluation team is not in a position directly to answer these questions. Forthcoming case-study research on how NDCs are addressing worklessness in their areas may throw more light on this issue.

- 4.20. When the starting position of NDC areas is introduced as a possible factor:
- the number of ABIs is no longer significant
 - starting position is now the only significant explanatory factor
 - this model has an adjusted R^2 of 0.27, so explains just over a quarter of the variation in change achieved.
- 4.21. Therefore on average panels in NDC areas which had lower employment rates in 2002 were most likely to see greatest increase in the employment rate between 2002 and 2006 and vice versa. Interestingly at this stage in the evolution of the Programme, total expenditure, number of projects or other Partnership characteristics are not significant predictors of change in employment rates.

Training and education

- 4.22. The key indicator for education is taking part in education or training over the last 12 months. Change across the 39 panels between 2002 and 2006 ranged from a decline of about 18, to an increase of almost 12, percentage points.
- 4.23. Initial analysis which does not take into account the starting position of the 39 areas finds no instances of levels of expenditure, number of projects or operational characteristics of local Partnerships being significant factors in predicting change in levels of those taking part in education or training amongst working age residents.³³ However, when starting position is added into the model:
- this proves to be significant at the 5 per cent level
 - the adjusted R^2 of 0.11 indicates that this explains only a tenth of variation.

Therefore on average panels in NDC areas which had low proportions of people who had taken part in education or training in the last 12 months were the areas most likely to see improvements in this outcome.

³³ Excludes those in full time education

Thinking the NDC has improved the area

- 4.24. In the initial analysis only one operational factor proves to be a significant predictor of increasing the proportion of residents who think the local NDC has improved the area: total number of board members:
- on average the larger the board the more positive change is achieved at the Partnership-level
 - this relationship is significant at the 5 per cent level.
- 4.25. It may be that this is an indication that Partnerships with larger boards are more 'keyed into' the needs of local communities. Having a larger membership generates more channels for disseminating good news back to a wider range of residents and for ensuring that in turn 'local voices' are heard at board meetings. Two other related indicators, the number of either resident or agency representatives on boards, are not significant. At this stage it is the absolute number of board members which proves to be important. And it should be emphasised that the model only explains 9 per cent of the variation in change: so there are other unexplained contributory factors.
- 4.26. The initial unadjusted model has been further refined to take into account each NDC area's starting position. When this is done:
- the starting position is now the only significant explanatory factor
 - this model has a better fit with an adjusted R^2 of 0.51, so explaining just over half of the variation at the NDC-level
 - thus areas where the lowest proportions of people thought the NDC had improved the area in 2002 were the most likely to have seen the biggest increases in the proportion thinking this by 2006.

Thinking the area has improved in the last two years

- 4.27. Finally a second indicator of overall performance is percentage change in respondents feeling their area has improved in the previous two years. Change across the 39 panels between 2002 and 2006 ranged from a decline of about 13, to an increase of almost 44, percentage points. Initial analysis in which starting position is not included as an explanatory variable shows that none of the possible explanatory variables is associated with change in the percentage of respondents feeling their area has improved. When starting position is included as a possible explanatory factor:
- it is the only significant predictor of NDC-level change
 - the beta coefficient is negative which implies that on average the lower the percentage in the first period the greater positive change achieved

- this relationship is significant at a 1 per cent level
- starting position explains 47 per cent of the variation in change in the percentage that view their area to have improved.

Concluding comment

4.28. Using panel data for each of the 39 NDC areas, this chapter has explored relationships between change across eight key indicators for the 2002–2006 stayers, on the one hand, with a range of possible explanatory variables, on the other. In practice not many positive associations have been identified. This may seem surprising. But this finding chimes with previously published analyses based on cross-sectional area-based data³⁴. It has to be remembered that much of this evidence deals with just four years of change. It may well be that many more associations will emerge as the Programme rolls out. Nevertheless three particular findings merit specific comment:

- there is consistent evidence to indicate that starting position is crucial: as might have been expected, panels in areas which were in a relatively more disadvantaged position in 2002 tended to make greatest gains by 2006: there was simply more headroom for change; starting position can in a sense ‘crowd out’ other effects
- there is now evidence of a statistically significant relationship between spend and one place-based outcome: fear of crime; this is true even when starting position is included in the model; previous work by the national evaluation team has identified relationships between people-based outcomes and spend; but this is the first time change data has picked up relationships between spend and any place-based outcome
- when starting position is not included in models, relationships are appearing between having more overlapping ABIs and positive outcomes: there is emerging evidence across the evaluation that added value arises from having other overlapping ABIs.

³⁴ CLG 2007: NDC: a synthesis of new Programme-wide evidence: 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930 Para 4.27

5. Understanding how the NDC Programme impacts on residents: associations between change across outcomes

Introduction

- 5.1. Previous chapters have looked at how change through time is occurring either at the level of the Programme as a whole (Chapter 3) or to the 39 separate panels (Chapter 4). In this chapter the emphasis shifts to understanding how outcome change occurs at the level of the individual living in an NDC area. The NDC Programme is an explicitly holistic Programme. It is designed to improve these 39 areas and the outcomes for individuals living within them across a range of outcome areas. But this raises the question of how in practice individuals might benefit from any interactions across different outcome areas. **The hypothesis explored in this chapter is that individual-level change in relation to one outcome area is associated with change in others.** The assumption that change in one outcome area will be associated with change in others is often assumed of ABIs. For example dealing with local environmental problems such as litter, degraded properties, and neglected open spaces might be associated with lower fear of crime and actual crime rates. Similarly improving local education standards might be associated with positive change in relation to worklessness and crime. These potential associations across outcome areas are often referred to as characteristic of 'holistic' approaches to regeneration where 'synergies' are created across different outcomes. However, although other ABIs may have claimed to be holistic in their approach, it is not clear that any previous ABI evaluation has had access to individual-level change data which allows this assumption to be tested. The focus in this chapter is therefore on exploring individual-level associations across outcomes. It should be stressed that analyses developed in this chapter are not about any associations between interventions and outcomes, but rather associations across different outcomes. Relationships between specific interventions and individual-level change for beneficiaries are explored in Chapter 8.
- 5.2. Analysis here is based on eight key outcomes covering the Programme's broad objectives. Ultimately there is no definitive way of identifying exactly which indicators to use. But for the sake of consistency the same eight are selected as were analysed in the previous chapter:

- **crime**: fear of crime score
 - **health**: SF 36 Mental Health
 - **housing and the physical environment**: satisfaction with the area
 - **community**: feel part of the community
 - **worklessness**: transition from not in employment to in employment
 - **education**: transition from not taken part in education or training in the past year to taken part in education or training in the past year.
- 5.3. Two overarching outcomes are also included. It could be argued that these are in effect summations of other outcome areas; they reflect the ‘pinnacle’ of area-based outcome change:
- thinking the local NDC has improved the area
 - thinking the area has improved in the previous two years.
- 5.4. Modelling individual-level change is based on three principles:
- key socio-demographic variables are taken into account: sex, age, ethnicity, tenure and household composition as is discussed above (2.14)
 - starting position is not incorporated into these models; the debate around the validity or otherwise of including starting position has already been addressed (2.23); models which do incorporate starting position are explored in Chapter 7
 - analysis is here based on the pure 2002–2006 NDC panel: those who stayed in one of the 39 areas for all of this four year period.
- 5.5. The remaining sections of this chapter explore each of the eight key outcome indicators and the two overarching indicators in turn looking at whether change in these broad outcomes is associated with change in more specific outcomes including:
- being a victim of crime in the last 12 months
 - lawlessness and dereliction score (see Appendix 1)
 - environment score (see Appendix 1)
 - social relations score (problems with neighbours and racial harassment – see Appendix 1)
 - feeling part of the community
 - vertical trust score (see Appendix 1)
 - satisfaction with the area
 - employment status
 - taking part in education or training in the last 12 months
 - general health
 - mental health (SF 36 Mental Health score – see Appendix 1).

- 5.6. Any associations between changes across different outcomes do not necessarily mean that there are causal links between variables.
- 5.7. Figures 5.1 to 5.8 illustrate coefficients from the modelling which predict respondent outcome change between 2002 and 2006 given known socio-economic characteristics at the beginning of the Programme. Coefficients are presented as bars on the x axis. Each bars represents the deviation from the base category (indicated with the prefix '- base'). Bars to the left of the x-axis indicate on average less positive change, and those to the right, greater positive change compared with the base group over this four year period. Bars are shaded when the difference from the base group is significant at the 5 per cent level.

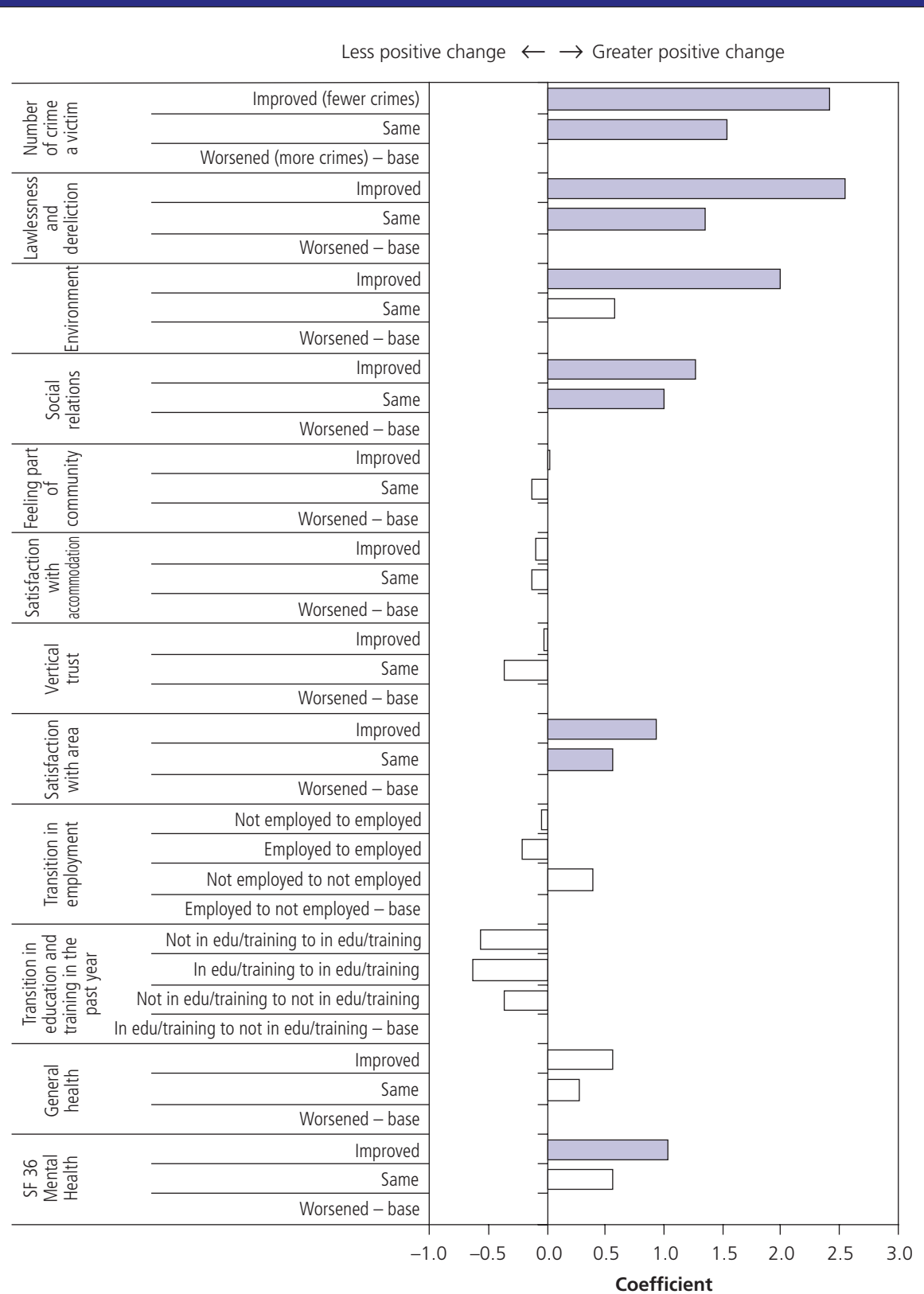
Fear of crime

5.8. Partnerships have undertaken a range of initiatives designed to reduce crime and fear of crime which the national evaluation team has explored elsewhere³⁵. Fear of crime is a better indicator than experiencing crime because it is more widely experienced and there is greater room for change. As is outlined in Table 3.1, there was an almost 15 percentage points fall in the percentage with a high Fear of Crime Index for those constituting the 2002–2006 Panel. In relation to fear of crime, the model shows (Figure 5.1):

- respondents who had been a victim of fewer or the same number of crimes in the previous 12 months had on average significantly greater positive improvement in their fear of crime score than those who were a victim of more crimes
- respondents with an improved or the same lawlessness and dereliction score on average experienced significantly greater positive change in their fear of crime score than those whose score worsened
- respondents with an improved environment score on average experienced significantly greater positive change than those whose score worsened
- compared with respondents whose score worsened, those with an improved or the same social relations score had on average significantly greater improvement in their fear of crime score
- respondents whose satisfaction with area score improved or stayed the same on average experienced significantly greater positive change in their fear of crime score relative to those whose score worsened
- respondents whose SF36 mental health score improved on average experienced significantly greater positive change in their fear of crime score relative to those whose score worsened.

³⁵ Delivering Safer Neighbourhoods: Experiences from the New Deal for Communities Programme
www.communities.gov.uk/documents/communities/pdf/737976.pdf

Figure 5.1: Fear of crime: outcome associations

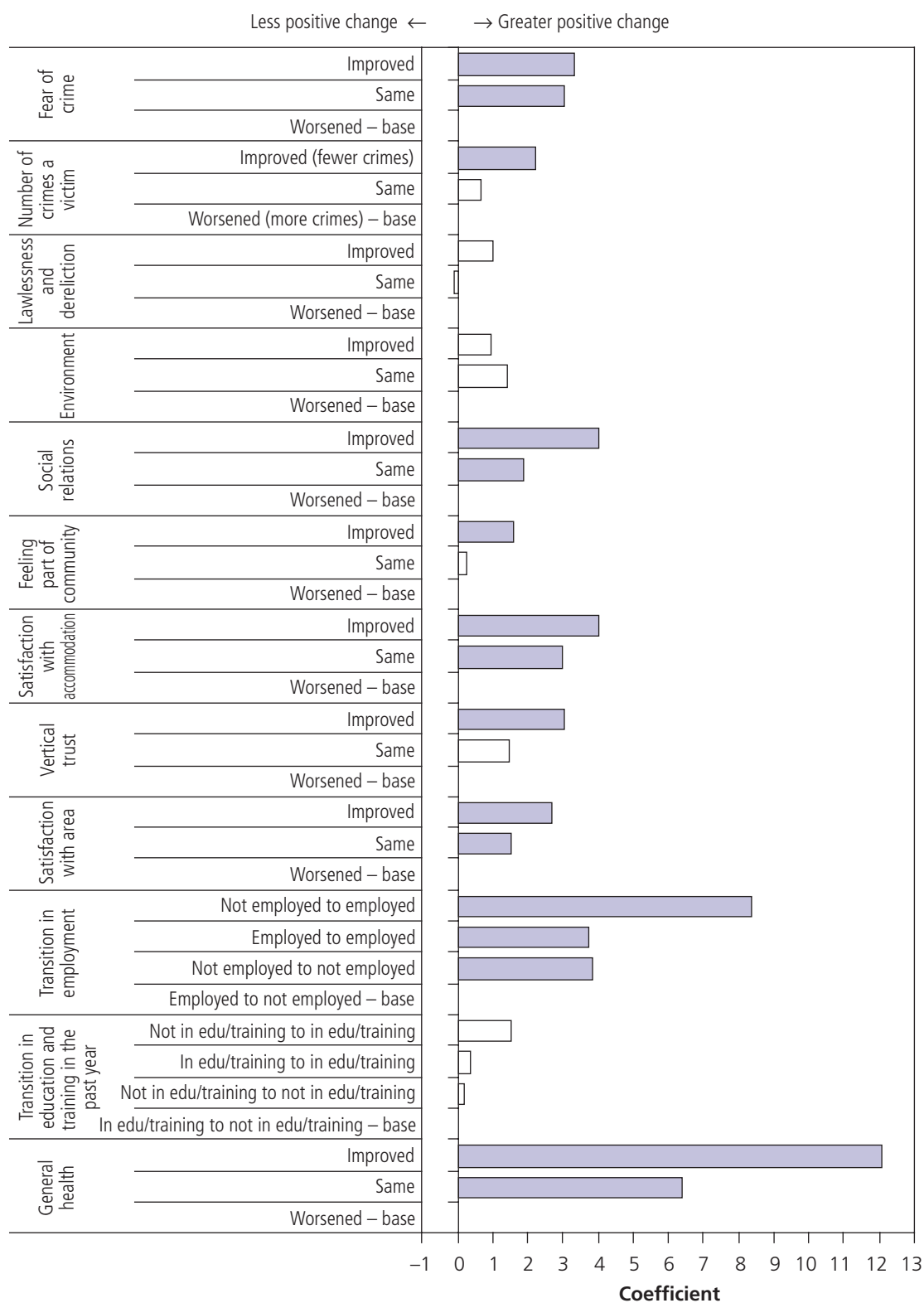


Note: darker bars indicate significantly greater/less improvement than base category at the 5 per cent level, white bars indicate not significant
 A positive coefficient indicates greater improvement than base category

SF 36 mental health

- 5.9. Across the Programme NDCs have implemented a wide range of measures designed directly or indirectly to impact on mental health including more specialist support in the community or attachments to GP practices. This model shows (Figure 5.2):
- compared with respondents whose score worsened, those with an improved or a same fear of crime score showed on average significantly greater improvement in their SF 36 mental health score
 - compared with those whose score worsened, those with an improved or same social relations score had on average significantly greater improvement in their SF 36 mental health score
 - compared with those whose score worsened, those with an improved or similar satisfaction with accommodation score had on average significantly greater improvement in their SF 36 mental health score
 - compared to respondents whose score worsened, those with an improved or same satisfaction with the area score had on average significantly greater improvement in their SF 36 mental health score
 - compared with those who were in employment at 2002 then not in employment at 2006 the three other groups all had greater positive change in their SF 36 mental score: those not in, but then in, employment; those in at both points; and those out at both points; interestingly those not in, but then in, employment on average experienced greatest change
 - respondents with an improved general health score on average experienced significantly greater positive change than those whose score stayed the same; the latter in turn on average had significantly greater positive change in their SF 36 mental health score than those whose general health score worsened
 - in addition respondents with an improved vertical trust score, feeling part of community score, or who had been the victim of fewer crimes, had on average significantly greater positive change in their SF 36 mental health score compared with those whose situations worsened.

Figure 5.2: SF 36 mental health: outcome associations



Note: Darker bars indicate significantly greater/less improvement than base category at the 5 per cent level, white bars indicate not significant
 A positive coefficient indicates greater improvement than base category

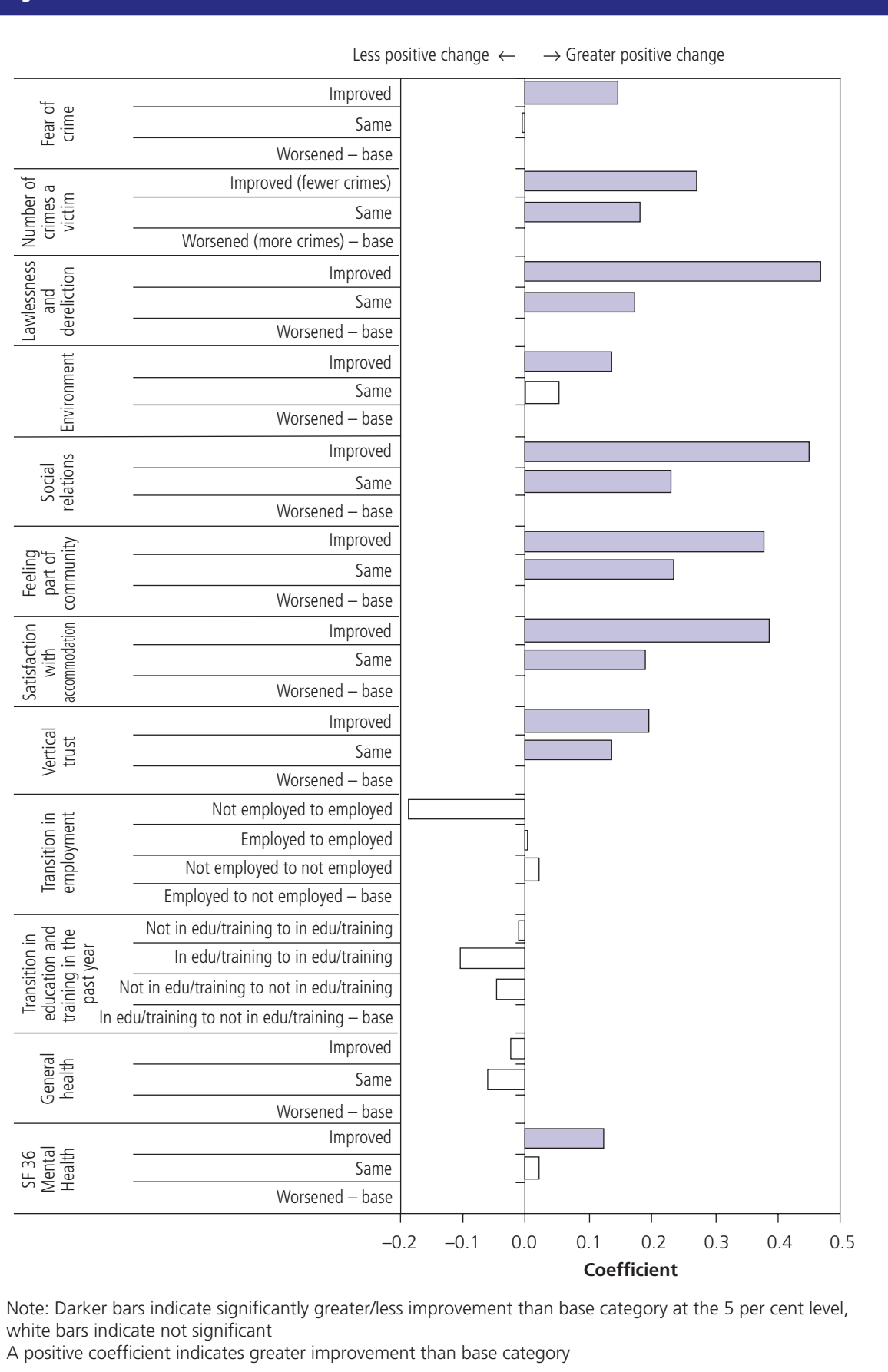
Satisfaction with the area

5.10. Satisfaction with the area is an important indicator of change in that it can be seen as reflecting general concerns about both the local environment but also local housing conditions. Many place-based initiatives, which are discussed elsewhere in an overview of change within six NDC areas³⁶, are designed to improve the area as a whole. Between 2002 and 2006 satisfaction with the area amongst those constituting the 2002 to 2006 Panel rose almost 10 percentage points. The model shows that (Figure 5.3):

- compared with those who were a victim of more crimes, those who were a victim of fewer or the same number of crimes saw on average significantly greater improvement in their satisfaction with the local area score
- on average respondents with an improved lawlessness and dereliction score experienced significantly greater positive change than those whose score stayed the same; the latter in turn had significantly greater positive change in their satisfaction with their area score than those whose lawlessness and dereliction score worsened
- respondents with an improved or the same social relations score on average experienced significantly greater positive change in their satisfaction with their area score than did those whose social relations score worsened
- compared with respondents whose feeling part of the community score worsened, those with an improved or same score enjoyed significantly greater improvement in their satisfaction with the local area score
- respondents with an improved satisfaction with accommodation score on average experienced significantly greater positive change than those whose score stayed the same; they in turn had significantly greater positive change in their satisfaction with their area score than did those whose satisfaction with accommodations score worsened
- compared to those whose vertical trust score worsened, those whose score improved or stayed the same witnessed significantly greater improvement in their satisfaction with the local area score
- respondents with improved scores in relation to fear of crime, environment and SF 36 mental health had on average significantly greater positive change than those whose situation worsened.

³⁶ CLG 2007 The Six Case Studies: An Introduction:
www.communities.gov.uk/documents/communities/pdf/737945.pdf

Figure 5.3: Satisfaction with the area: outcome associations



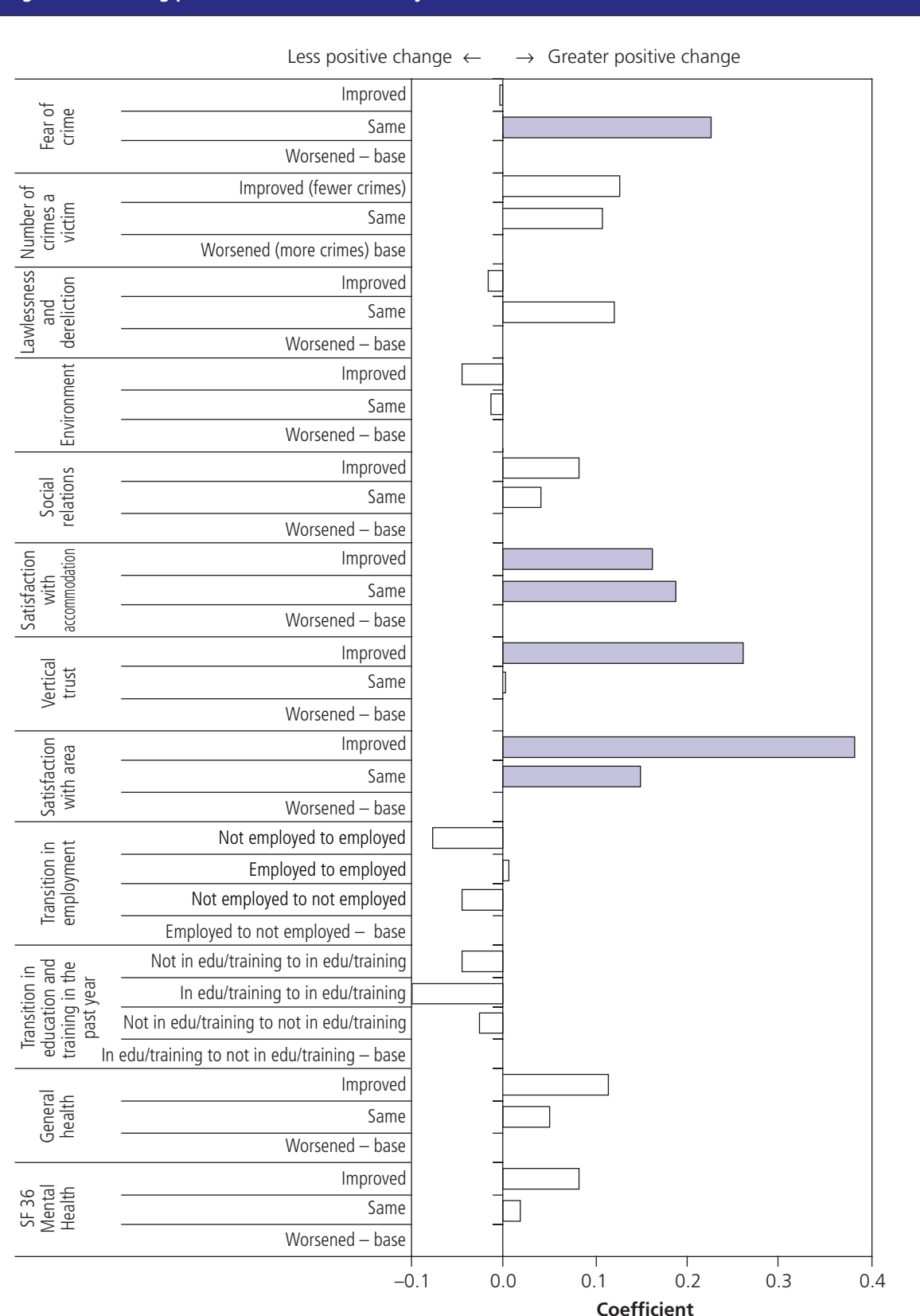
Feeling part of the local community

5.11. The NDC Programme is designed to place the community at the heart of the initiative. Partnerships have introduced a wide range of initiatives designed to enhance community involvement in devising and implementing Partnership-level strategies. The relationship between community engagement and outcomes has recently been addressed by the national evaluation team³⁷. By 2006 about 47 per cent of the 2002–2006 panel felt part of the community, a six percentage points increase on 2002 (Table 3.1). In relation to feeling part of the community the model shows (Figure 5.4):

- compared with respondents whose satisfaction with accommodation score worsened, those whose score improved or stayed the same had on average significantly greater improvement in feeling part of the local community
- respondents with an improved vertical trust score experienced significantly greater positive change than those whose score worsened
- respondents showing an improved or similar satisfaction with the area score in wave 3 (2006) on average experienced significantly greater positive change than those whose score worsened
- respondents with the same fear of crime score on average experienced significantly greater positive change than those whose score worsened
- interestingly there are no statistically significant relationships between feeling part of the community and improved social relations.

³⁷ Improving outcomes? Engaging local communities in the NDC Programme

Figure 5.4: Feeling part of the local community: outcome associations



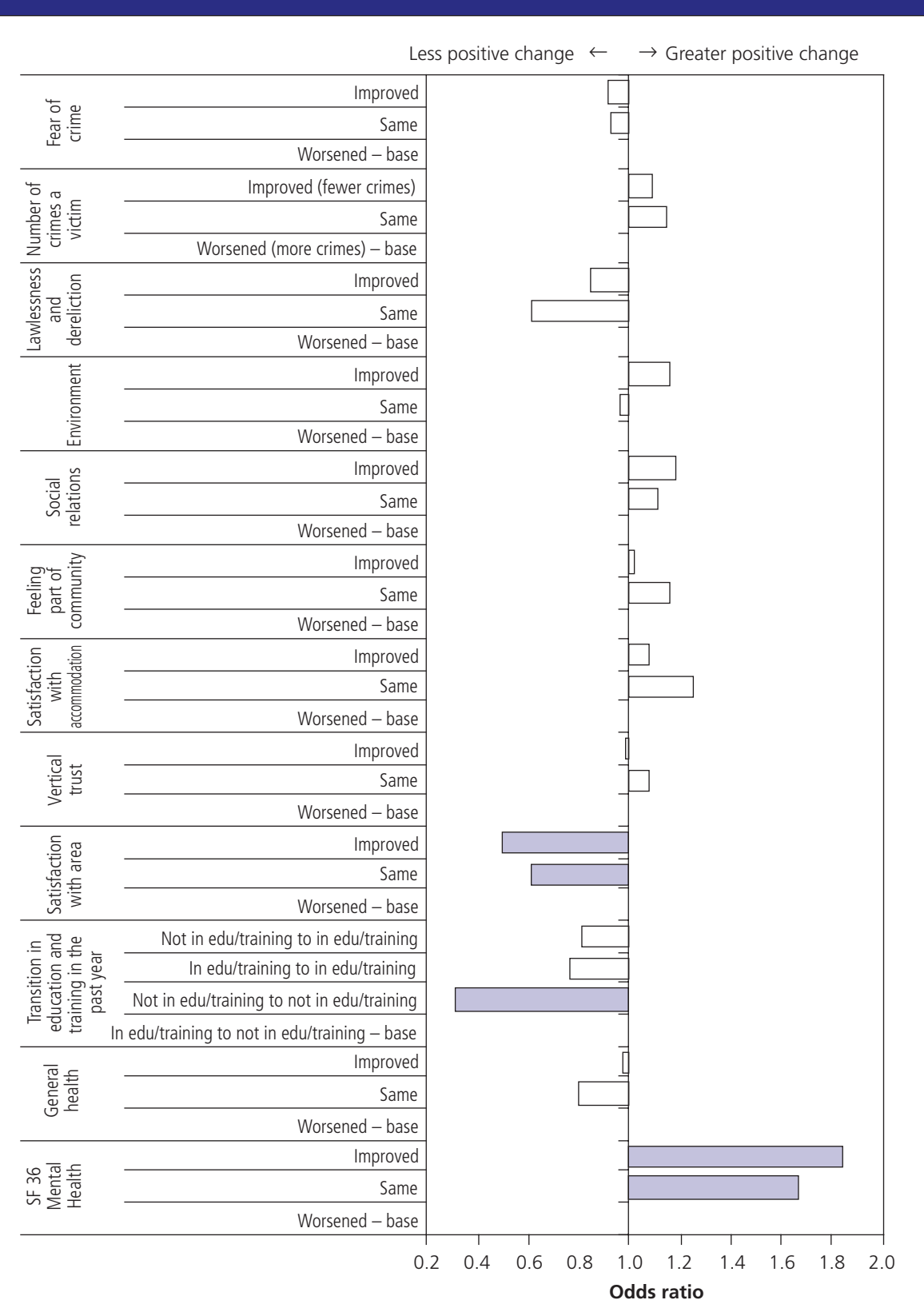
Note: Darker bars indicate significantly greater/less improvement than base category at the 5 per cent level, white bars indicate not significant
 A positive coefficient indicates greater improvement than base category

Worklessness

- 5.12. Across the Programme NDCs have implemented schemes such as job training, personal mentoring and brokerage projects designed to assist local residents to enter, and remain within, the job market. Here the key outcome is transition from being not in employment in 2002 to being in employment in 2006³⁸. 52 per cent of the working age wave 1 to wave 3 panel (2002–2006) were in employment in 2002, and 54 per cent in 2006. Of those not in employment in 2002, 22 per cent were in employment by 2006. Conversely, 15 per cent of respondents in employment at 2002 were not in employment at 2006. The model shows just three clear associations (Figure 5.5):
- compared with working age respondents whose satisfaction in the area score worsened wave 1 to wave 3, those whose score improved or stayed the same are on average significantly less likely to make the transition from being not in employment to in employment; the implications of this relationship are revisited in the last chapter (9.9)
 - compared with working age respondents who had taken part in education or training in the past year in wave 1 but not in wave 3, respondents who had not taken part in education or training in the past year in both periods are on average significantly less likely to make the transition from being not in employment to in employment; it could be here that those who had taken part in education and training in the past year in 2002 were more aware of, and better able to compete for, job opportunities
 - compared with working age respondents whose SF 36 mental health score worsened wave 1 to wave 3, those whose score improved or stayed the same are on average significantly more likely to make the transition from being not in employment to in employment; this is a classic example of where the direction of change is unclear and why it is best to see these relations as reflecting association not causation: does better mental health enhance job opportunities or do those making a transition into employment see improvements in their mental health?

³⁸ The model includes only working age respondents at both time points who were not in employment in first period

Table 5.5: Worklessness: outcome associations

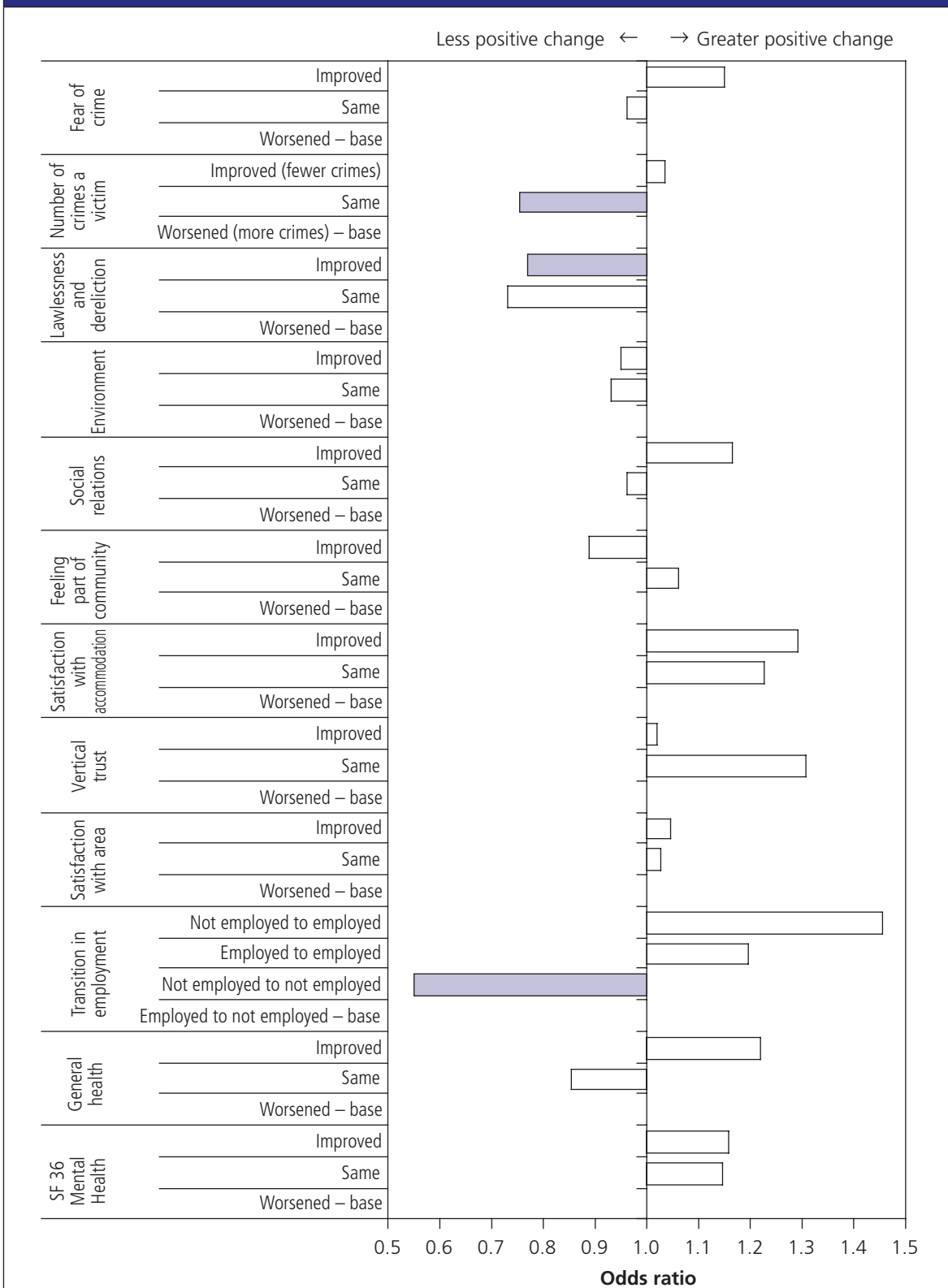


Note: Darker bars indicate significantly more/less likely than base category at the 5 per cent level, white bars indicate not significant
 An odds ratio above 1 indicates compared to the base category a greater likelihood to make the transition from not in employment to in employment, while an odds ratio below 1 indicates that this transition is less likely
 Base: all working age and not in employment in first period

Training and education

- 5.13. The key outcome here is transition from not having taken part in education or training in the past year in 2002 to having taken part in education or training in the past year in 2006. The model shows (Figure 5.6):
- compared with working age respondents who were a victim of more crimes in wave 3 than wave 1, those who were a victim of the same number are on average significantly less likely to make the transition from not taking part in education or training to taking part in education or training in the past year
 - compared with those working age respondents whose lawlessness and dereliction score worsened wave 1 to wave 3, those whose score improved are on average significantly less likely to make the transition from not taking part in education or training to taking part in education or training in the past year
 - compared with working age respondents in employment in wave 1 but not in wave 3, respondents not in employment in both periods are on average significantly less likely to make the transition from not taking part in education or training in the past year to taking part in education or training in the past year: perhaps those who moved from being in, to out of, work had more opportunity, more motivation, and more awareness of how important education and training can be in (re)entering the labour market.

Figure 5.6: Training and education: outcome associations



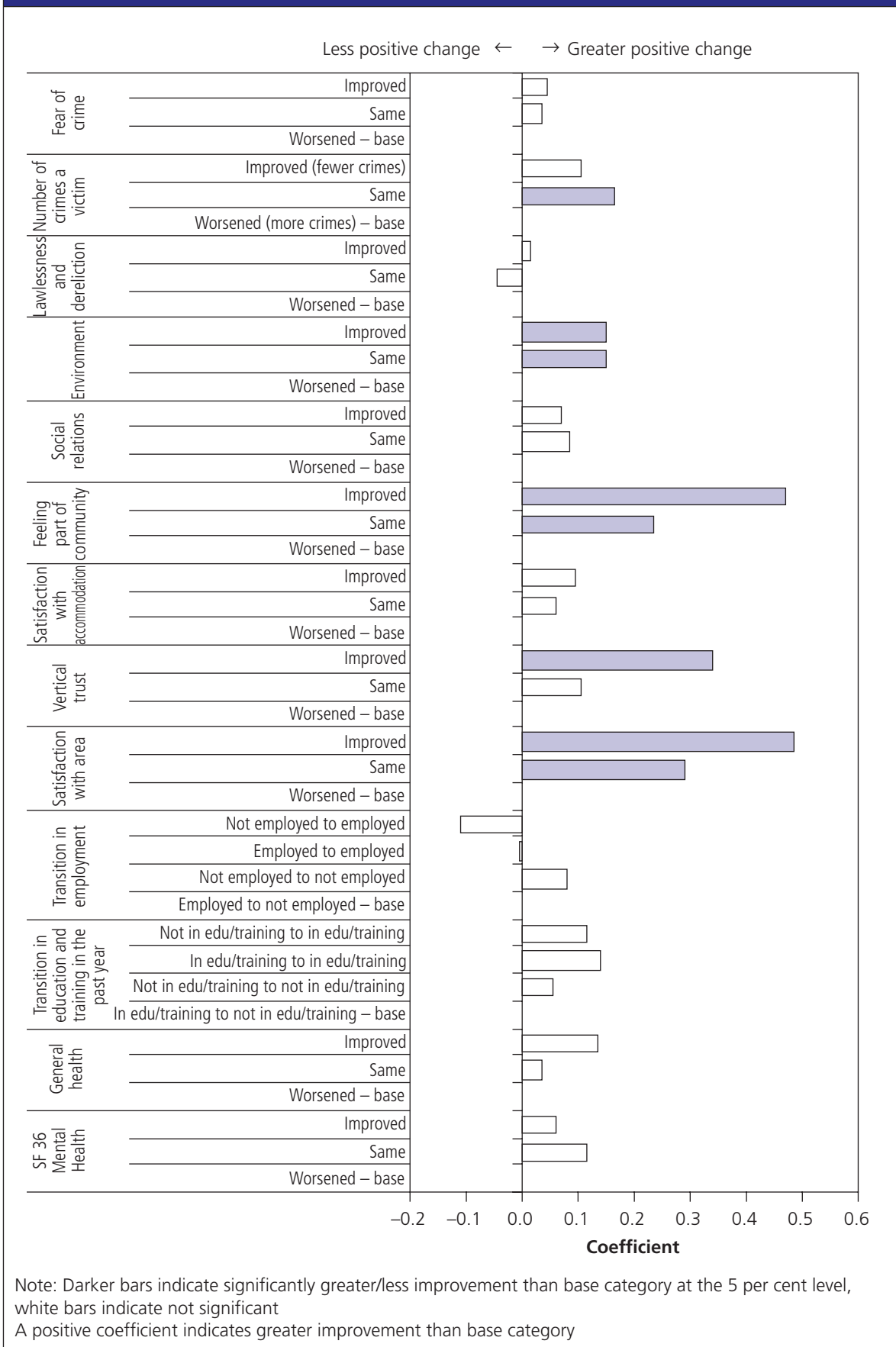
Note: Darker bars indicate significantly more/less likely than base category at the 5 per cent level, white bars indicate not significant
 An odds ratio above 1 indicates compared to the base category a greater likelihood to make the transition from not in education/training in the past year to in education/training in the past year, while an odds ratio below 1 indicates that this transition is less likely
 Base: All not in education/training in the past year in first period. Includes all ages and full-time education

Thinking the NDC has improved the area

5.14. As well as outcome specific indicators, there is merit too in considering two overarching outcomes. The intention here is to identify indicators which reflect more broadly on how members of the panel perceive changes in their neighbourhood as a whole, and the degree to which they ascribe any such improvements to their local NDC. One of the two overarching outcomes relates to the degree to which panel members consider the area has improved in the previous two years (5.20). That indicator has the advantage of introducing an element of reflection in that it is designed to tease out the degree to which panel members think the area has improved ‘recently’ compared with a few years ago. The other overarching indicator relates to the proportion of panel members who, having heard of their local NDC, think it has improved the area. This indicator has the advantage of linking any apparent improvements in the neighbourhood to the local NDC. Some 34 per cent of the 2002–2006 panel thought their local NDC had improved the area in 2002, but fully 61 per cent four years later. The model here shows (Figure 5.7):

- those reporting the same number of crimes on average experienced greater positive change in feeling the NDC had improved the area than did those whose score worsened
- compared to those whose environment score worsened between wave 1 and wave 3, those with an improved or same score showed significantly greater improvement in thinking their NDC had improved the area
- compared with respondents whose feeling part of the community score worsened, those whose score improved or stayed the same showed significantly greater positive change in feeling the local NDC had improved the area
- respondents whose vertical trust score improved wave 1 to wave 3 experienced significantly greater positive change in thinking their local NDC had improved the area compared with those whose score worsened
- compared to those whose satisfaction with their area score worsened, those whose score improved or stayed the same revealed significantly greater improvements in feeling their local NDC had improved the area.

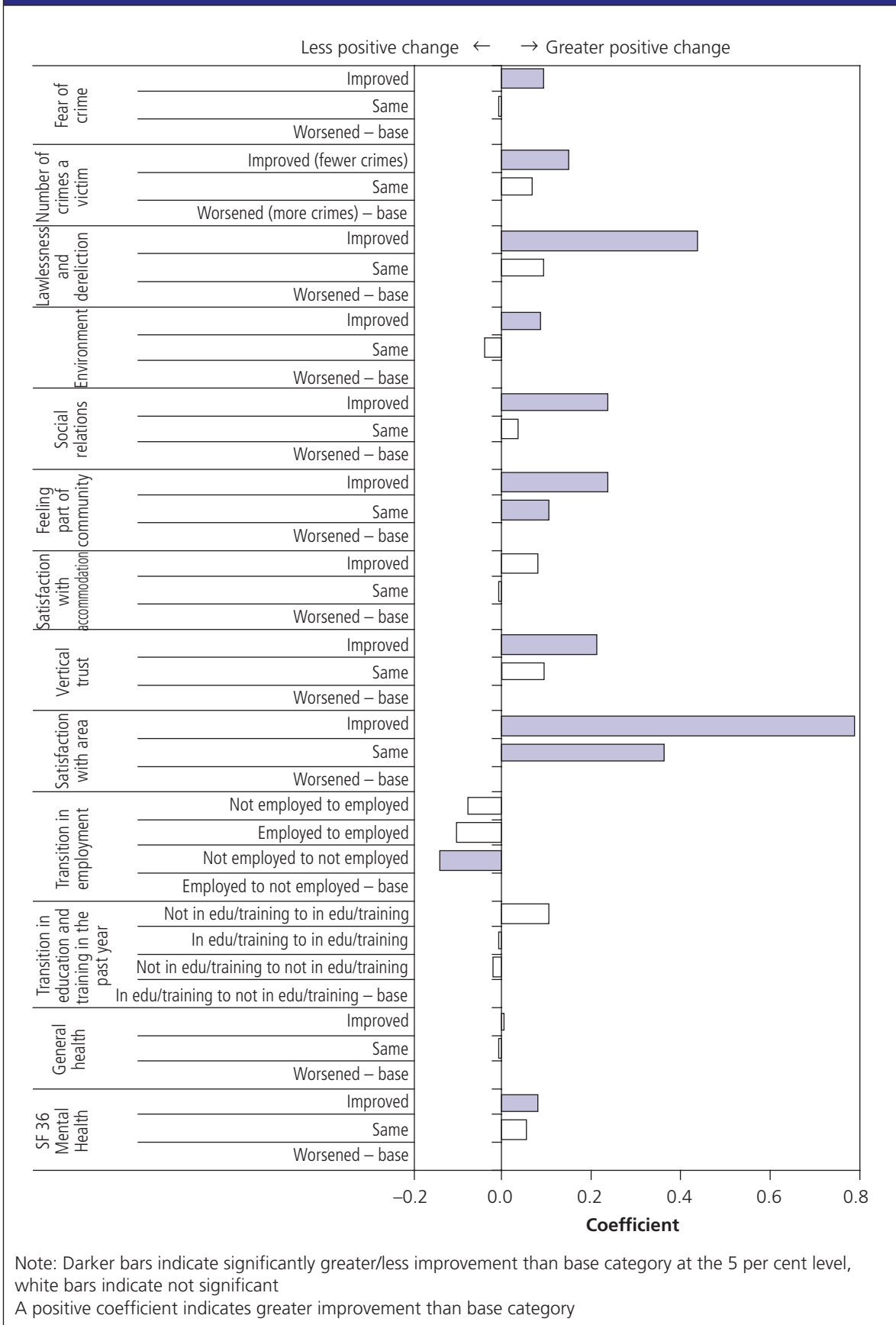
Figure 5.7: Thinking NDC has improved the area: outcome associations



Thinking the area has improved in the last two years

- 5.15. Finally, the second of the two overarching outcomes, is thinking the area has improved in the last two years. By 2006 some 42 per cent of the 2002–2006 panel thought the area had improved in the previous two years, an 18 percentage points increase on 2002. The model shows (Figure 5.8):
- respondents whose fear of crime score improved wave 1 to wave 3 on average experienced significantly greater positive change in thinking the area had improved compared with those whose score worsened
 - those reporting a lower number of crimes on average experienced greater positive change in thinking the area had improved than did those whose score worsened
 - compared with those whose lawlessness and dereliction score worsened between wave 1 and wave 3, those with an improved score showed significantly greater improvement in thinking the area had improved in the last two years
 - compared with those whose environment score worsened between wave 1 and wave 3, those with an improved score showed significantly greater improvement in thinking the area had improved
 - respondents whose social relations score improved on average experienced significantly greater positive change in thinking the area had improved compared with those whose score worsened
 - compared with respondents whose feeling part of the community score worsened, those whose score improved or stayed the same showed significantly greater positive change in thinking the area had improved in the last two years
 - respondents whose vertical trust score improved wave 1 to wave 3 on average experienced significantly greater positive change in thinking the area had improved in the last two years compared with those whose score worsened
 - compared with those whose satisfaction with their area score worsened, those whose score improved or stayed the same revealed significantly greater improvements in thinking the area had improved in the last two years
 - compared with those who moved from being in employment to being not in employment between wave 1 and wave 3, those who remained not in employment in both periods showed significantly less improvement in thinking the area had improved
 - respondents whose SF36 mental health score improved on average experienced significantly greater positive change in thinking the area had improved in the last two years compared with those whose score worsened.

Figure 5.8: Thinking the area has improved in the last two years: outcome associations



- 5.16. An increase in the number of individuals who think the area has improved in the previous two years can be seen as an overarching objective potentially reflecting a myriad of 'subsidiary' environmental, social, economic and institutional changes. In practice individual change data supports this assumption in that increases are associated with improvements in environmental and crime indices, health, employment, trust, social relations and satisfaction with the area.

Concluding comment

- 5.17. This chapter has attempted to unravel how outcome change occurs at the level of the individual. In particular, it has sought to identify any evidence of associations between outcome changes in one area with those in others. Three concluding points should be stressed:
- it is interesting to see how change in each of these eight outcomes is intimately related to change in at least some other outcome areas; this scale of interaction can be seen as justification for holistic renewal: positive change in key outcome areas 'builds on', and in turn enhances improvements to, other outcome areas
 - it is also intriguing to note that inter-relationships are generally stronger for place-based rather than people-based outcomes; evidence emerging from across the evaluation suggests that NDC Partnerships, generally find it easier to intervene within the 'place' domain; in so doing there seems every possibility of reaping additional 'synergistic' rewards because of the mutually beneficial links across that nexus of themes surrounding crime, the environment, trust in local agencies, social relations, and mental health
 - as a corollary of this, the two outcomes which appear to stand as outliers to this general sense of inter-connectedness are worklessness and education; this should not be seen as implying these themes ought not be addressed by neighbourhood renewal agencies; but achieving positive change in these outcomes does seem to lie in separate 'people-based' arenas; evidence to date suggests that these outcomes are less likely to interact with that diet of interrelated place-based interventions which NDCs have found it relatively easier to introduce and which tend to feed off each other.

6. The NDC and comparator areas' panels: contrasting experiences

Introduction

- 6.1. The previous chapter explored associations across outcomes for individuals in NDC areas. This chapter also looks at individual-level change by incorporating analyses of how the NDC panel changes when compared with the comparator areas panel. Having individual-level panel data for both NDC and comparator areas allows the evaluation team to explore change to the NDC panel in relation to the comparator areas panel in three ways:
 - comparing outcome change: NDC and comparator area panels
 - individual-level transitions in NDC and comparator areas
 - the spread of benefits.
- 6.2. The critical role which the comparator areas play in creating an effective counterfactual is outlined in Chapter 2. There is an argument that on balance the best way through which to assess Programme-wide change is to identify how NDCs perform against similarly deprived neighbourhoods in the same local authority district.
- 6.3. However, it is worth reiterating at the outset to this debate that the comparator areas are not scientific 'controls'. They are different in some respects from NDC areas. For example, as is flagged up in 2.13, the scale of problems impacting on those constituting the NDC areas panel in 2002 tended to be more concentrated than was true for panel members in the comparator areas (Table 6.1).

Table 6.1: NDC and comparator area samples: 2002				
	Percentage of residents			
	Longitudinal		Cross-sectional	
	NDC	Comp	NDC	Comp
No Qualifications (a)	38	34	33	28
Workless household (b)	41	34	41	32
Satisfied with area	62	70	60	70
Lawlessness & dereliction index, high score	31	18	31	18
Fear of crime, high	34	27	32	29
Victim of at least one crime (c)	33	28	34	29
Health not good	25	23	23	21

Source: Ipsos MORI Longitudinal panel (2002–04) and Ipsos MORI NDC household survey

Base: All NDC longitudinal (10,638) Comparator longitudinal (1,010) NDC cross-sectional (19,574) Comparator cross-sectional (2,014), (a) Working age in 2002 NDC longitudinal (7,861) Comparator longitudinal (717) NDC cross-sectional (15,158) Comparator cross-sectional (1,508), (b) Working age households in 2002 NDC longitudinal (8,293) Comparator longitudinal (758) NDC cross-sectional (15,821) Comparator cross-sectional (1,583)

(c) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

Comparing outcome change: NDC and comparator area panels

6.4. Individual-level panel data provide an overview of how the two panels have changed through time (Table 6.2).³⁹ The scale of change can be identified for the three panels: 2002 to 2004, 2004 to 2006, and 2002–2006. A summation of change for the 2002–04 period together with that for 2004–06 will not necessarily equate to that occurring to the 2002–06 panel since each figure is drawn from different, albeit overlapping, panels. A summary of change across some 26 outcome indicators for different panels is provided in Table 6.3. Table 6.4 provides an overview of the relative performance of the NDC panel against the comparator areas panel.

³⁹ See Appendix 5 for absolute position in 2006

Table 6.2: NDC and comparator areas: change 2002–04, 2004–06 and 2002–06

	Net percentage point change		
	02–04 (a)	04–06 (b)	02–06
Education			
No qualifications (c) (j)	-0.5	-1.9	-2.7
Taken part in education or training in the past year (d)	1.3	-2.7	-0.7
Need to improve basic skills (j)	-0.9	1.4	-4.1
Health			
No physical activity for at least 20 mins (j)	-1.2	0.7	-1.9
Smoke (j)	0.4	-0.8	1.5
Health not good (j)	1.9	-1.5	-3.2
Health worse than a year ago (j)	2.6	-3.8	-3.7
Satisfied with doctor (e)	1.3	-0.3	0.2
Crime			
Lawlessness and dereliction index, high score (j)	-5.7	-1.0	-4.1
Feel unsafe after dark (j)	0.2	2.0	1.2
Fear of crime index, high score (j)	-4.1	1.6	-5.2
Been a victim of at least one crime (h) (j)	-1.7	-0.4	-8.1
Housing and physical environment			
Satisfied with area	4.6	0.4	5.5
Trapped (i) (j)	-1.6	-2.1	-1.6
Want to move (j)	-1.6	-2.5	-2.3
Satisfied with accommodation	-1.8	1.3	-0.4
Think area has improved over last 2 years (f)	3.1	4.2	5.1
Problems with environment index, high score (j)	-4.4	0.4	-1.8
Community			
Feel part of the community	-0.5	-0.3	-4.3
Neighbours look out for each other	5.2	-1.1	-2.0
Quality of life good	0.0	0.2	1.2
Can influence decisions that affect local area	2.9	-1.4	0.7
Worklessness and finance			
Receive benefits (j)	3.5	-0.8	-1.0
Workless households (g) (j)	-1.2	0.7	0.4
In employment (c)	3.3	-1.1	3.0
Income less than £200 per week (j)	-0.3	1.4	0.4

Source: Ipsos MORI Longitudinal panel (2002–04–06), (a) 2002–04 panel, (b) 2004–06 panel

Base: All NDC 2002–04 (10638) NDC 2004–06 (9131) NDC 2002–06 (5499) Comp 2002–04 (1010) Comp 2004–06 (1628) Comp 2002–06 (458), (c) Working age in both years NDC 2002–04 (7530) NDC 2004–06 (6274) NDC 2002–06 (3607) Comp 2002–04 (672) Comp 2004–06 (1073) Comp 2002–06 (279), (d) Working age & not in full time education in both years NDC 2002–04 (7104) NDC 2004–06 (5970) NDC 2002–06 (3429) Comp 2002–04 (624) Comp 2004–06 (1006) Comp 2002–06 (258), (e) Seen doctor in previous 12 months in both years NDC 2002–04 (7637) NDC 2004–06 (6712) NDC 2002–06 (3994) Comp 2002–04 (729) Comp 2004–06 (1165) Comp 2002–06 (328), (f) Lived in area two or more years in both years NDC 2002–04 (9589) NDC 2004–06 (8073) NDC 2002–06 (5029) Comp 2002–04 (903) Comp 2004–06 (1432) Comp 2002–06 (417), (g) Working age households in both years NDC 2002–04 (7983) NDC 2004–06 (6727) NDC 2002–06 (3866) Comp 2002–04 (717) Comp 2004–06 (1166) Comp 2002–06 (302)

(h) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(i) Want to move but feel it is unlikely to happen.

Note: NDC and comparator change scores in bold are significant at the 5 per cent level; net change scores in bold indicate that either NDC or comparator change (or both) are significant at the 5 per cent level

Positive scores indicate an improvement; except (j) where negative scores indicate an improvement

Rows may not sum due to rounding

Table 6.3: NDC and comparator areas: summary of change across 26 indicators 2002–04, 2004–06 and 2002–06

	NDC change			Comparator change		
	02–04 (a)	04–06 (b)	02–06	02–04 (a)	04–06 (b)	02–06
No. indicators showing improvement	19	20	21	18	16	16
No. indicators showing significant improvement	18	10	17	8	6	8
No. indicators showing deterioration	7	6	5	8	10	10
No. indicators showing significant deterioration	3	3	3	1	5	4

Source: Ipsos MORI Longitudinal panel (2002–04–06), (a) 2002–04 panel, (b) 2004–06 panel

Table 6.4: NDC panel relative to comparator areas panel: 2002–04, 2004–06 and 2002–06

	02–04 (a)	04–06 (b)	02–06
No. indicators NDC outperformed comparator	18	13	18
No. indicators showing significant change* and NDC outperformed comparator	15	10	15
No. indicators comparator outperformed NDC	8	13	8
No. indicators showing significant change* and comparator outperformed NDC	6	6	6

Source: Ipsos MORI Longitudinal panel (2002–04–06), (a) 2002–04 panel, (b) 2004–06 panel

*Either NDC or comparator change (or both) are significant at the 5 per cent level

6.5. Reflecting on key differences between the NDC and the comparator areas panel:

- the NDC panel saw significant improvement between 2002–2006 in more than twice the number of indicators than the comparator areas: 17 indicators compared to eight; the latter saw significant deterioration in four indicators between 2002 and 2006, compared with three for the NDC areas
- for most indicators, members of the NDC panel saw more positive change than did those in the comparator areas panel; for indicators where there is evidence of significant change 2002 and 2006, the NDC panel experienced greater change than the comparator area panel in 15 cases, showing relative deterioration in six indicators
- this is true for all of the six main outcome areas, although the NDC advantage is perhaps less evident in relation to the community dimension and also with regard to worklessness and finance
- in terms of significant change, NDC panel improvements were concentrated in the earlier part of the Programme, with 18 indicators showing significant improvement between 2002 and 2004 and ten between 2004 and 2006; this is not so evident for health where it may

well be that any positive impacts of NDC projects will take several years to become apparent

- change for the comparator areas panel was more consistent over time, with eight indicators showing significant improvement between 2002 and 2004 and six between 2004 and 2006.

6.6. It is worth pausing on those indicators where there was an ‘inverse’ relationship. In these instances members of the comparator areas panel outperformed those in the NDC areas. For at least three of these there could be an obvious explanation:

- feeling unsafe after dark may well have fallen less for the NDC panel as a result of more ‘crime-related’ initiatives being implemented in these 39 areas: residents may simply be more aware of crime and associated anti-crime measures
- a ‘net NDC loss’ in relation to feeling part of the community may appear perverse but could reflect the scale of redevelopment in many of these 39 areas and a subsequent loss of community identity; it may be too that NDC sponsored ‘community development and cohesion’ initiatives can act to highlight tensions or differences between communities within NDC areas as a whole
- a ‘net NDC loss’ between 2002 and 2004 in relation to receiving benefits may reflect the fact that many Partnerships instigated benefit claimant campaigns in their early years, one result of which may well have been an increase of those on benefits.

Individual-level transitions in NDC and comparator areas

6.7. Using panel data it is possible to establish how individuals in both the NDC and comparator areas experience change through time (Table 6.5). Net changes (i.e. the difference between the proportion of households who make a ‘worse to better’ change compared with those making a ‘better to worse’ change) to some indicators are considerable for members of both panels. For example, members of both panels saw at least a net ten percentage point positive swing in relation to a number of crime and other ‘area’ indicators. One approach which allows an exploration of relative change across the two panels is to identify the percentage of NDC and comparator panel respondents making positive or negative transitions for these 25⁴⁰ indicators:

- for 19 indicators there is an improvement in circumstances from ‘worse’ to ‘better’ amongst a greater proportion of individuals in NDC areas than in comparator areas; these indicators are especially concentrated in three outcome areas: health, crime and housing and the physical environment

⁴⁰ This table excludes one indicator included in earlier tables: No Qualifications. This is because to make a transition from better to worse is not a logical transition to make.

- the reverse is true, a greater proportion of individuals in the comparator areas seeing positive transitions, for six indicators; these are spread across outcome areas, although it is interesting to see that this is true for two of the four community indicators, a theme which is further developed in the next chapter
- there is a deterioration in circumstances from 'better' to 'worse' amongst a greater proportion of individuals in NDC areas than in comparator areas for 13 of the indicators.

Table 6.5: NDC and comparator areas: transitions 2002–2006

	Percentage of NDC respondents			Percentage of comparator respondents			NDC – Comp
	'Worse' to 'better'	'Better' to 'worse'	Net effect	'Worse' to 'better'	'Better' to 'worse'	Net effect	Net effect
Education							
Taken part in education or training in the past year (b)	12.7	13.7	–1.0	14.8	15.1	–0.3	–0.7
Need to improve basic skills	15.8	9.7	6.0	13.3	11.4	1.9	4.1
Health							
No physical activity for at least 20 mins	4.9	7.8	–2.9	3.7	8.4	–4.8	1.9
Smoke	7.0	3.7	3.3	6.7	1.9	4.8	–1.5
Health not good	11.3	10.1	1.2	9.7	11.7	–2.0	3.2
Health worse than a year ago	12.1	13.4	–1.3	9.5	14.5	–5.1	3.7
Satisfied with doctor (c)	9.9	9.0	0.9	10.3	9.6	0.6	0.2
Crime							
Lawlessness and dereliction index, high score	21.3	4.4	17.0	15.0	2.2	12.9	4.1
Feel unsafe after dark	19.7	10.7	9.0	21.6	11.4	10.2	–1.2
Fear of crime index, high score	21.1	6.3	14.8	17.5	7.9	9.6	5.2
Been a victim of at least one crime (f)	20.7	12.8	7.9	16.2	16.4	–0.2	8.1
Housing and physical environment							
Satisfied with area	20.2	10.4	9.8	14.0	9.6	4.3	5.5
Trapped (g)	10.0	9.9	0.1	8.0	9.5	–1.5	1.6
Want to move	10.7	16.1	–5.4	7.4	15.1	–7.7	2.3
Satisfied with accommodation	8.3	8.3	0.1	5.9	5.4	0.5	–0.4
Think area has improved over last 2 years (d)	28.1	9.8	18.2	21.6	8.5	13.1	5.1
Problems with environment index, high score	16.0	6.7	9.3	11.4	3.9	7.5	1.8
Community							
Feel part of the community	20.6	14.7	5.9	22.3	12.2	10.2	–4.3
Neighbours look out for each other	16.5	13.8	2.6	16.3	11.6	4.7	–2.0
Quality of life good	13.5	11.6	1.9	11.5	10.7	0.7	1.2
Can influence decisions that affect local area	15.3	12.3	3.0	15.4	13.1	2.3	0.7

continued

Table 6.5: NDC and comparator areas: transitions 2002–2006

	Percentage of NDC respondents			Percentage of comparator respondents			NDC – Comp
	'Worse' to 'better'	'Better' to 'worse'	Net effect	'Worse' to 'better'	'Better' to 'worse'	Net effect	Net effect
Worklessness and finance							
Receive benefits	9.9	14.2	–4.3	10.8	16.2	–5.3	1.0
Workless households (e)	10.7	7.8	3.0	9.6	6.2	3.4	–0.4
In employment (a)	10.6	7.9	2.7	9.6	9.9	–0.3	3.0
Income less than £200 per week	18.4	10.3	8.1	18.4	9.9	8.5	–0.4

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All NDC (5499) Comp (458), (a) Working age in 2002 & 2006 NDC (3607) Comp (279), (b) Working age & not in full time education in 2002 & 2006 NDC (3429) Comp (258), (c) Seen doctor in previous 12 months in 2002 & 2006 NDC (3994) Comp (328), (d) Lived in area two or more years in 2002 & 2006 NDC (5029) Comp (417), (e) Working age households in 2002 & 2006 NDC (3866) Comp (302)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

Note: Net effect is the difference between the percentage of respondents moving from 'worse' to 'better' and the percentage of respondents moving from 'better' to 'worse'

Transitions here are based on binary variables and as such represent a simple move 'into' or 'out of' a particular situation

Rows may not sum due to rounding

6.8. These transitions are of considerable interest because they show how individuals change their perceptions or behaviour. To give one example. Cross-sectional area-based data has shown that there is as yet little to suggest any reduction in those wanting to move from NDC areas⁴¹. This is somewhat surprising since that data also indicates a considerable increase in those thinking these areas have improved. But cross-sectional area-based data averages across a multitude of individual-level decisions, changes in attitude and personal transitions. This is where the power of the individual-level data becomes apparent. In this instance for instance:

- of those making a positive transition in their 'area changed over last 2 years' score⁴² 34 per cent wanted to move in 2002 and 32 per cent in 2006
- but of those making a negative transition in their 'area changed over last 2 years' score, 29 per cent wanted to move in 2002, but fully 39 per cent in 2006.

6.9. Clearly considerable individual-level volatility underpins aggregated area level figures. In this case there are apparently relationships between attitudes to the area and moving intentions. In particular those making a negative transition proved much more likely to want to move by 2006 than had been the case four years previously. The overall Programme-wide figures drawn

⁴¹ New Deal for Communities National Evaluation: An Overview of Change Data: 2006. www.neighbourhood.gov.uk/publications.asp?did=1898

⁴² This score is based on a five point scale, ranging from 'Area got much better' to 'Area got much worse', as opposed to the binary variables used in Table 6.4. However, the relationship shown here with residents' desire to move still holds when the binary variable 'Thinking area has improved' is used.

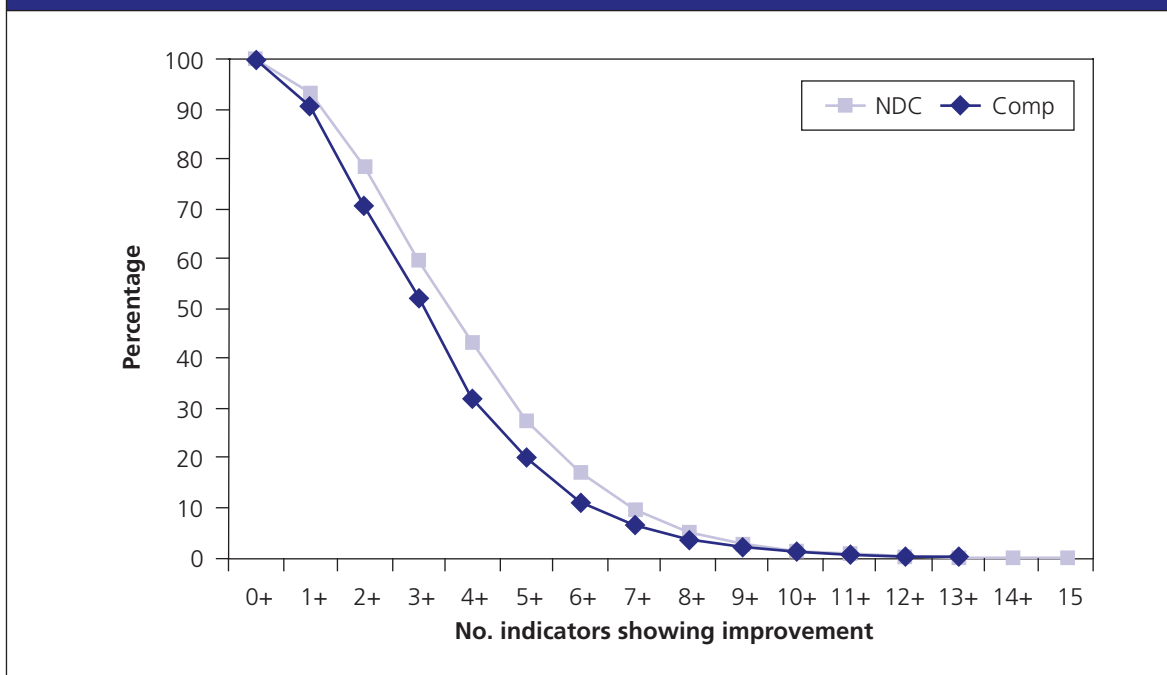
from cross-sectional area-based data may point to limited change. But these averages hide considerable volatility at the individual-level.

The spread of benefits

- 6.10. Evidence presented above suggests that those constituting the NDC panel are seeing more positive benefits than those in the comparator areas panel. But how are such benefits distributed within these two panels? It could conceivably be that 'net NDC benefits' are actually tending to accrue to a relatively small group of NDC panel members. Because longitudinal panel data identifies what happens to every individual it is possible to assess the degree to which intensive ABIs such as NDCs lead to more positive outcomes for any one person. Figure 6.1 shows the spread of positive transitions for the two populations: those in either the 2002–2006 NDC, or in the comparator areas, panel. This indicates the distribution of respondents by the number of 'improvements', tallied across 25⁴³ indicators. This evidence as a whole indicates that:
- the NDC line in Figure 6.1 is consistently 'above' the comparator line: a higher proportion of NDC respondents have individually made more positive transitions than have those in the comparator sample
 - the highest number of indicators showing improvement for any one individual in the NDC panel was 15, compared with 13 in comparator areas panel
 - 79 per cent of NDC panel residents experienced improvement in two or more key indicators, compared with 71 per cent for the comparator areas panel
 - 28 per cent of NDC residents experienced improvements in five or more key indicators, compared with 20 per cent of comparator area residents.
- 6.11. If negative outcomes are considered in a similar way, there is virtually no difference in the distribution across the two panels; 13 per cent of NDC and 14 per cent of comparator area residents experienced no negative transitions; 14 per cent of NDC residents and 14 per cent of those in comparator areas experienced five or more negative transitions.
- 6.12. There is a clear message here: individuals within the NDC areas panel are seeing more positive outcome changes than are those in the comparator areas panel.

⁴³ This tally excludes one indicator included in earlier tables: No Qualifications (see previous footnote)

Figure 6.1: Spread of benefits across NDC and comparator areas panels: 2002–2006



Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All NDC (5499) Comparator (458)

Note: Transitions here are based on binary variables and as such represent a simple move 'into' or 'out of' a particular situation

Concluding comment

- 6.13. This chapter provides a descriptive overview of change to those constituting the NDC panel when compared with those in the comparator areas panel. The clear headline finding here is that taken at face value members of the NDC panel are seeing more positive outcome change than are those in the comparator areas panel. However, as is developed in the next chapter, descriptive statistics need to be modelled to take into account both individual-level socio-demographic characteristics and also starting position.

7. Understanding individual-level change: NDC and comparator areas' panels

- 7.1. The previous chapter uses descriptive statistics to explore change occurring to individuals in either of the two panels: NDCs and comparator areas. But as is outlined in Chapter 2 'first cut' descriptive statistics do not always tell the full story. A thorough appreciation of change requires descriptive statistics to be adjusted in order to control for individual-level socio-demographics (2.14). In addition there is also the debate about whether to incorporate individual-level starting position into analyses to take into account the extent differences in the two panels are a reflection of the fact that on average those in the NDC panel are more likely to be deprived than are those in the comparator areas panel, and are therefore more likely to see more positive outcome changes (2.23).
- 7.2. Because the evidence presented below is both important, but also at times quite complex to understand, two illustrative case studies are also developed to explore the ramifications of modelled data in more detail:
- change for two similar individuals one in an NDC area and one in a comparator area
 - explaining change for one key indicator: area changing in the last two year.

Do differences between the two panels reflect different socio-demographic characteristics?

- 7.3. General Linear Models (GLMs) are used in order to control for socio-demographics. A fuller explanation of this technique is contained in Chapter 2. But it is worth here re-iterating that GLMs are a powerful analytical tool as they allow outcomes to be considered after taking into account underlying differences in the individual-level socio-demographics of the populations for each of the two areas. Table 7.1 profiles the local population in 2002 in NDC and comparator areas in relation to those factors which are incorporated into GLMs. Tenure is the most obvious distinguishing factor: 58 per cent of NDC residents are in social housing, compared with 44 per cent in comparator areas.

Table 7.1: Key demographic characteristics: NDC and comparator area longitudinal samples: 2002

	Percentage of residents	
	NDC	Comp
Gender		
Male (a)	48	48
Female (a)	52	52
Age		
16–24	12	11
25–49	47	45
50–59	16	17
60+	25	28
Ethnicity		
White	78	82
Asian	12	11
Black	11	7
Tenure		
Owner occupier	36	51
Social sector renter	58	44
Private renter	5	5
Household composition		
Couple, no dependent children	22	24
Couple with dependent children	18	21
Lone parent family	16	14
Single person household	32	31
Large adult household	11	10

Source: Ipsos MORI Longitudinal panel (2002–04)

Base: All NDC (10638) Comparator (1010), (a) All in household NDC (26480) Comparator (2487)

7.4. In Table 7.2 findings produced using GLM techniques in relation to mean differences between NDC and comparator area residents are presented as a series of coefficients. These findings take forward the descriptive data presented in Table 6.2. Here that initial cut at change data is refined by controlling for individual-level socio-demographics. This new evidence is available for the 2002–04 and the 2004–06 panels (Table 7.2) and also for the ‘pure’ 2002–06 panels (Table 7.3). Fifteen pseudo-continuous variables are considered for each of the three separate panels. A positive figure indicates that members of the NDC panel are seeing more positive change than those in the comparator areas and vice versa where a negative figure is given:

- in the **2002–2004** period there were five indicators where the NDC panel saw statistically significant positive change when assessed against the comparator areas panel: satisfaction with area, problems with lawlessness and dereliction, the local environment, and social relations, and thinking the area has improved in the last two years

Table 7.2: General Linear Models NDC versus comparator area change: adjusted for differences in key demographics: 2002–2004 and 2004–2006

	Adjusted mean difference: NDC – Comp	sig.
Panel: 2002–04		
HOUSING AND AREA		
Satisfaction with repair of home	–0.01	0.827
Satisfaction with accommodation	–0.05	0.159
Satisfaction with area	0.13	0.004
Lawlessness & dereliction score	0.72	0.000
Problems with environment score	0.21	0.007
Quality of life	0.00	0.905
Extent area improved in the last two years	0.18	0.000
COMMUNITY		
Problems with social relations score	0.08	0.011
Vertical trust score	0.14	0.198
Extent feel part of community	0.06	0.213
Extent people in area are friendly	0.03	0.359
HEALTH		
SF36 mental health score	–0.65	0.356
CRIME		
Fear of crime score	0.05	0.820
Extent feel safe walking alone after dark	0.07	0.130
Number of crimes been a victim	–0.10	0.573
Panel: 2004–06		
HOUSING AND AREA		
Satisfaction with repair of home	0.01	0.763
Satisfaction with accommodation	–0.03	0.420
Satisfaction with area	0.06	0.077
Lawlessness & dereliction score	–0.09	0.488
Problems with environment score	–0.20	0.002
Quality of life	–0.01	0.754
Extent area improved in the last two years	0.12	0.001
COMMUNITY		
Problems with social relations score	0.03	0.205
Vertical trust score	–0.24	0.008
Extent feel part of community	–0.06	0.130
Extent people in area are friendly	0.03	0.333
HEALTH		
SF36 mental health score	0.50	0.389
CRIME		
Fear of crime score	–0.31	0.116
Extent feel safe walking alone after dark	–0.03	0.394
Number of crimes been a victim	0.01	0.945

Note: All coefficients have been placed on the same metric. Therefore, a positive score indicates that on average NDC residents improved more than comparator area residents, *ceteris paribus*. Figures in bold are significant at the 5 per cent level.

- only one indicator is significantly better for the NDC **2004–06** panel: thinking the area has improved in the last two years; two indicators were significantly worse for the NDC panel than the comparator areas panel: problems with the environment and vertical trust
- there were three indicators where the **2002–06** NDC panel saw a positive and statistically significant relative change: satisfaction with the area, lawlessness and dereliction, and thinking area has improved in last two years.

Table 7.3: General Linear Models NDC versus comparator area change: adjusted for differences in key demographics: 2002–2006

	Adjusted mean difference: NDC – Comp	sig.
Panel: 2002–06		
HOUSING AND AREA		
Satisfaction with repair of home	0.03	0.622
Satisfaction with accommodation	–0.01	0.811
Satisfaction with area	0.19	0.005
Lawlessness & dereliction score	0.52	0.034
Problems with environment score	0.03	0.776
Quality of life	–0.03	0.618
Extent area improved in the last two years	0.29	0.000
COMMUNITY		
Problems with social relations score	0.06	0.182
Vertical trust score	–0.14	0.387
Extent feel part of community	–0.10	0.202
Extent people in area are friendly	0.03	0.587
HEALTH		
SF36 mental health score	1.70	0.110
CRIME		
Fear of crime score	–0.40	0.279
Extent feel safe walking alone after dark	–0.03	0.681
Number of crimes been a victim	–0.20	0.530

Note: All coefficients have been placed on the same metric. Therefore, a positive score indicates that on average NDC residents improved more than comparator area residents, *ceteris paribus*. Figures in bold are significant at the 5 per cent level.

- 7.5. Hence taking a broad overview of this evidence it is clear that there are relatively few statistically significant differences between changes occurring to the NDC panel when assessed against changes for the comparator areas panel, after taking into account underlying socio-demographic differences.
- 7.6. Whilst GLMs are suitable for investigating differences in repeated measures over time such as scores on a Likert scale or a combined score across a number of questions, they are not suitable for use with binary measures, including transition variables, such as moving from not being in employment to employment, or from not taking part in education or training in the past

year to taking part. For these types of variables logistic regression models are used and adjust for the same demographic variables as do GLMs (Table 7.4). Results are presented as a series of odds ratios which reflect the probability of a given outcome occurring to an NDC resident relative to a resident with similar characteristics in the comparator areas panel. For example, an odds ratio of two means that an NDC resident is twice as likely as a similar resident in the comparator areas to make a specified transition. Results indicate that:

- the only significant difference between panel residents in NDC areas and those in comparator areas is that they were almost twice as likely to move out of unemployment in the 2002–2004 period.

Table 7.4: Logistic Regression Models NDC versus comparator area change: adjusted for differences in key demographics: 2002–2004, 2004–2006 and 2002–2006

	Adjusted odds ratio's: NDC to comparator	sig.
Panel: 2002–04		
Worklessness		
Employed (no to yes)	1.05	0.739
Unemployment (yes to no)	1.94	0.002
Education		
Education or training in past year (no to yes)	1.18	0.198
Panel: 2004–06		
Worklessness		
Employed (no to yes)	0.83	0.146
Unemployment (yes to no)	0.95	0.711
Education		
Education or training in past year (no to yes)	0.92	0.396
Panel: 2002–06		
Worklessness		
Employed (no to yes)	0.86	0.461
Unemployment (yes to no)	1.46	0.200
Education		
Education or training in past year (no to yes)	0.96	0.808

Note: all variables are for working age only

Do differences in starting positions account for differences in outcomes between the two panels?

- 7.7. As is discussed earlier (2.22.) one of the consistent findings to emerge from the evaluation is that starting position has a bearing on the degree of change any individual is likely to make: the more deprived tend to make greater progress, in that they have more scope for change. Therefore models presented in Tables 7.5 and 7.6 include starting position as an additional

factor in order to help understand differences between outcomes occurring to the NDC panel compared with those in the comparator areas panel. In effect these models consider outcomes for individuals presenting similar levels of deprivation in relation to the indicator under consideration at the baseline (2002). A full breakdown of the GLM coefficients and significance derived for key demographic sub groups contained in the base models is given in Appendix 2. Appendix 3 provides results for a full set of repeat models which also take into account previous score at the beginning of each time period.

- 7.8. Fifteen pseudo continuous variables are considered for each of the three separate panels:
- for all 15 starting position is a significant factor in explaining change at the individual-level
 - this is a consistent pattern across all three panels: 2002–04, 2004–06 and 2002–06
 - those from a worse starting position are more likely to make greater improvements than those who were not in as deprived a position to start with
 - this is true for individuals in both NDCs and comparator areas.
- 7.9. For individuals showing similar levels of deprivation in 2002, residents in NDC areas achieve significantly greater improvement than those in comparator areas for only one indicator: thinking the area has improved in the last two years. This is consistent across all three panels (2002–04, 2004–06, and 2002–06). Hence an individual in the NDC areas panel who thought the area had got much worse in the two years prior to 2002 was more likely to see greater improvements than was a similar person in a comparator area who also thought their area had got much worse prior to 2002.
- 7.10. However given two individuals of similar opinions and characteristics in 2002 one in the NDC panel and one in the comparator areas panel, then the former is more likely to have seen less positive change than the latter in relation to:
- two indicators for the 2002–04 panel: satisfaction with state of repair of home and satisfaction with accommodation
 - seven indicators for the 2004–06 panel: satisfaction with accommodation, lawlessness and dereliction, problems with the environment, vertical trust, feeling part of the community, fear of crime, and feeling safe after dark
 - three indicators for the 2002–06 panel: lawlessness and dereliction, fear of crime, and feeling safe after dark.

Table 7.5: General Linear Models NDC versus comparator area change: adjusted for differences in key demographics and starting position: 2002–2004 and 2004–2006

	Adjusted mean difference: NDC – Comp	sig.
Panel: 2002–04		
HOUSING AND AREA		
Satisfaction with repair of home	-0.09	0.022
Satisfaction with accommodation	-0.09	0.004
Satisfaction with area	-0.04	0.344
Lawlessness & dereliction score	-0.12	0.347
Problems with environment score	0.01	0.845
Quality of life	-0.05	0.107
Extent area improved in the last two years	0.28	0.000
COMMUNITY		
Problems with social relations score	-0.01	0.714
Vertical trust score	0.02	0.819
Extent feel part of community	0.01	0.817
Extent people in area are friendly	-0.03	0.370
HEALTH		
SF36 mental health score	-0.93	0.123
CRIME		
Fear of crime score	-0.27	0.186
Extent feel safe walking alone after dark	-0.05	0.217
Number of crimes been a victim	-0.09	0.494
Panel: 2004–06		
HOUSING AND AREA		
Satisfaction with state of repair	-0.06	0.074
Satisfaction with accommodation	-0.07	0.008
Satisfaction with area	0.00	0.887
Lawlessness & dereliction score	-0.50	0.000
Problems with environment score	-0.29	0.000
Quality of life	-0.04	0.086
Extent area improved in the last two years	0.22	0.000
COMMUNITY		
Problems with social relations score	-0.02	0.290
Vertical trust score	-0.23	0.003
Extent feel part of community	-0.08	0.021
Extent people in area are friendly	0.00	0.900
HEALTH		
SF36 mental health score	0.34	0.489
CRIME		
Fear of crime score	-0.58	0.001
Extent feel safe walking alone after dark	-0.08	0.020
Number of crimes been a victim	0.01	0.965

Note: All coefficients have been placed on the same metric. Therefore, a positive score indicates that on average NDC residents improved more than comparator area residents, ceteris paribus. Figures in bold are significant at the 5 per cent level.

Table 7.6: General Linear Models NDC versus comparator area change: adjusted for differences in key demographics and starting position: 2002–2006

	Adjusted mean difference: NDC – Comp	sig.
Panel: 2002–06		
HOUSING AND AREA		
Satisfaction with repair of home	–0.04	0.517
Satisfaction with accommodation	–0.06	0.236
Satisfaction with area	–0.01	0.873
Lawlessness & dereliction score	–0.51	0.006
Problems with environment score	–0.18	0.053
Quality of life	–0.05	0.192
Extent area improved in the last two years	0.37	0.000
COMMUNITY		
Problems with social relations score	0.00	0.964
Vertical trust score	–0.18	0.184
Extent feel part of community	–0.09	0.159
Extent people in area are friendly	0.00	0.989
HEALTH		
SF36 mental health score	1.37	0.122
CRIME		
Fear of crime score	–0.67	0.028
Extent feel safe walking alone after dark	–0.14	0.020
Number of crimes been a victim	–0.12	0.615

Note: All coefficients have been placed on the same metric. Therefore, a positive score indicates that on average NDC residents improved more than comparator area residents, *ceteris paribus*. Figures in bold are significant at the 5 per cent level.

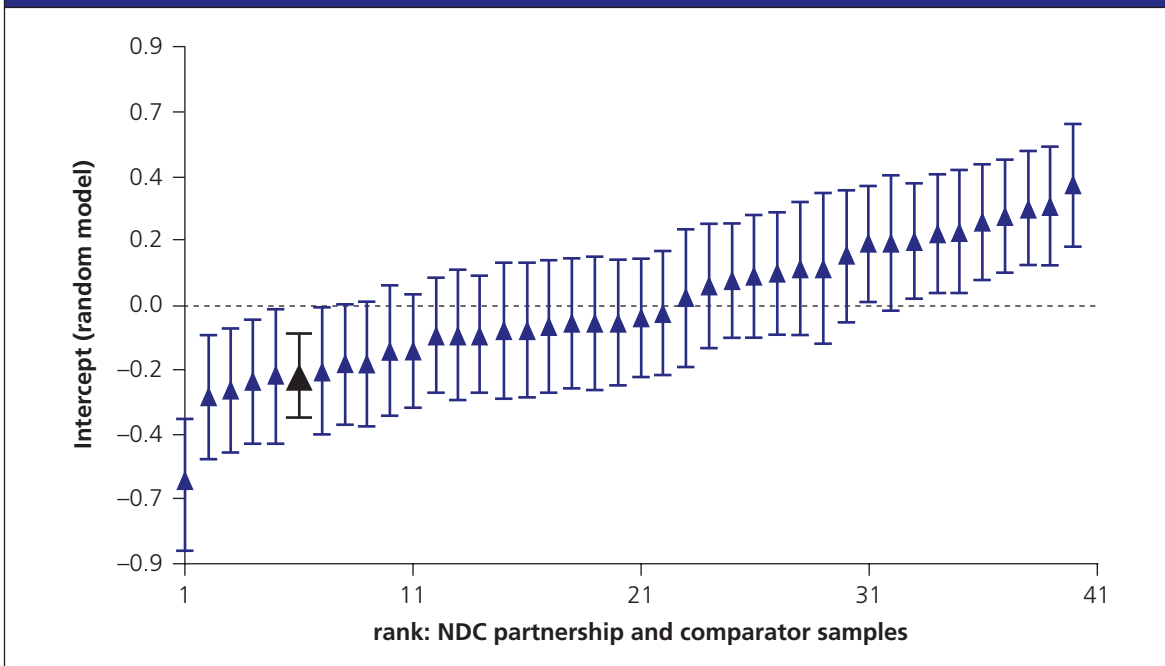
- 7.11. To explore area and individual effects in greater detail a series of multilevel models has been employed, a statistical technique which takes account of the hierarchical nature of data available to the evaluation⁴⁴. Multilevel modelling fits a series of linear regression models for each of the areas based on the individuals each accommodates. Data is considered as 40 clusters of individuals (39 Partnerships and 1 pooled comparator area). It is likely that groupings of individuals within each cluster will be more alike, on average, than residents in other clusters. A model which considers the characteristics of individuals within each cluster, rather than the data as a whole, is more likely to provide an accurate picture of the attributes of individuals within the Programme.
- 7.12. Sets of random intercept multilevel models have been fitted to explore change between 2002–2006 for a wide range of indices. Three are developed in more detail in this report since they illuminate indices where previous GLM models point to significant change between 2002 and 2006 (Table 7.3):

⁴⁴ Rasbash, J., Browne, W., Goldstein, H., Yang, M., Plewis, I., et al (2002) *A users guide to MlwiN*. London: University of London.

- lawlessness and dereliction
 - area satisfaction
 - think area has improved over last two years.
- 7.13. Because key headline findings for all three are similar, only the last is considered here; the others are laid out in Appendix 4.
- 7.14. These models test the degree to which there is significant area, and also individual, level variation. By comparing these two variances it is possible to calculate the extent to which variation can be explained by individual-level, as opposed to area-level, characteristics. ‘Caterpillar’ plots of residuals for each of the models illustrate the degree of variation amongst NDC areas and the extent to which the comparator area is significantly different from the average which is depicted as the zero line. For each of these diagrams:
- it is possible to show the extent to which individual areas are doing better or worse than we would expect given their socio-demographic profile
 - the tails represent the 95 per cent confidence intervals for each residual
 - if the tail does not cross the zero line this indicates that the intercept fitted for a cluster or area is significantly above or below the average across all areas
 - the comparator area is shown as a larger triangle.
- 7.15. Two models have been fitted to assess the degree to which the area has improved over the last two years from 2002–2006. The first of these does not include starting position (Figure 7.1). This indicates:
- that the comparator areas as a whole are significantly below the average (0.0) line; that is, on average achieve significantly less positive change
 - level 1 individual-level variance of 1.69 (SE 0.03) and level 2 area level variance of 0.061 (SE 0.017): 3.5 per cent of the effect can be attributed to area level differences and 96.5 per cent by individual-level factors.
- 7.16. A second model includes starting position (Figure 7.2) and shows:
- the comparator area panel is still significantly below the average (0.0) line
 - level 1 individual-level variance of 1.013 (SE 0.02) and level 2 area level variance of 0.034 (SE 0.009): 3.2 per cent of the effect can be attributed to area level differences and 96.8 per cent by individual-level factors.
- 7.17. Taking the key headlines from this model, together with those arising from the two others outlined in Appendix 4, three overarching conclusions emerge:
- multilevel modelling confirms results of analyses based on GLMs outlined earlier in this chapter: those in the NDC panel are more positive about thinking the area has improved than are those in the comparator areas
 - however in explaining rates of change across these 40 clusters (the 39 NDCs and the comparator areas) the area effects (whether living in an NDC area or not) are marginal compared with individual-level characteristics

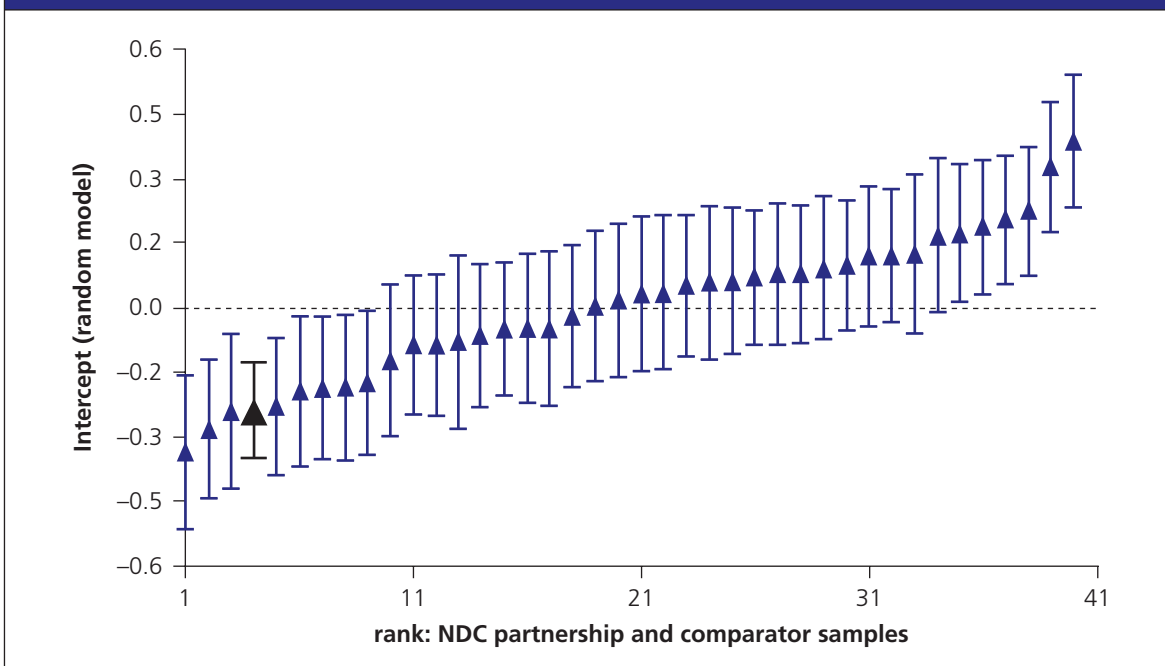
- but nevertheless these limited area level effects are still significant: something is happening at the neighbourhood level which helps explain variations across these areas in relation to changes in the proportion of respondents thinking the area has improved; it seems plausible to assume this reflects the impact of area-based improvement initiatives.

Figure 7.1: MLM model for area improved in the last two years change, excluding starting position: 2002–2006



Large triangle: comparator areas composite

Figure 7.2: MLM model for area improved in the last two years change including starting position: 2002–2006



Large triangle: comparator areas composite

Individuals and area-level change: an illustrative example

- 7.18. Findings from models outlined above are important in that they illustrate the area versus the individual effects of the Programme. By introducing the individual-level characteristic of starting position as an explanatory variable, the area level variable (whether a panel member lives in an NDC area or a comparator area) in most instances becomes either redundant or shifts in a 'negative' fashion, suggesting those in the comparator areas saw more positive change for a number of indicators.
- 7.19. To illustrate the relative importance of individual and area-level characteristics a hypothetical example is detailed below. Here the assumption is that Individual 1 lives in an NDC, and Individual 2 in a comparator, area. They have the same demographic characteristics in relation to gender, age, household composition, ethnicity and tenure. If outcomes were to be predicted on the basis of models, which do not include starting position (see Table 7.3), then for the 2002 to 2006 panel the likelihood is that Individual 1, in an NDC area, would improve more than Individual 2 in relation to three scores:
- area satisfaction
 - lawlessness and dereliction
 - think the area has improved over time.
- 7.20. However, it is also known that at the starting position (2002) both Individual 1 and 2 were very dissatisfied with the area, considered there were serious problems with lawlessness and dereliction, and thought the area had worsened in the two years prior to 2002. In these circumstances then:
- 7.21. On average Individual 1 and Individual 2 will improve their satisfaction with area score by the same amount (Table 7.6):
- knowing where they live makes no significant difference in predicting this outcome, over and above that explained by their starting score
 - both individuals would be more likely to make greater change than for similar individuals who were less dissatisfied to start with
 - because there are more dissatisfied people in NDC areas than in comparator areas to start with, NDC areas as a whole tend to achieve more change over time on this measure precisely because of the higher concentrations of people with these characteristics in the 39 areas in 2002
 - therefore the area-level effect reflects a compositional effect of the types of individuals within the areas.
- 7.22. On average Individual 1 in the NDC area will not improve their lawlessness and dereliction score by as much as will Individual 2 (Table 7.6):

- the biggest determinant of change is starting position: the worse off make the greatest improvements
 - because there are more people with these characteristics in NDC areas then an area effect is a significant factor when starting position is not explicitly included in the model
 - however once starting position is known then there is likely to be a small negative effect associated with being in an NDC rather than in a comparator area
 - due to the greater number of individuals with more entrenched problems in NDC areas, then even taking into account this small negative area effect, overall NDC areas still improve by a greater amount than do comparator areas since they accommodate more people with lowest scores in relation to lawlessness and dereliction.
- 7.23. On average Individual 1 in the NDC area will see their perception of the area over the last two years improve by more than will Individual 2 in the comparator area (Table 7.6):
- this is the case even after starting position is taken account of
 - therefore people with similar opinions on this measure in 2002 are likely to see an additional positive effect associated with living in an NDC rather than in a comparator area.
- 7.24. In summary, within NDC areas there are greater concentrations of more seriously deprived individuals. Since these people are more likely to make greatest improvements this has a kind of 'local multiplication' effect which increases the density of change observed at the area level. For many measures individuals in the NDC panel have seen no more improvement, indeed often less, than have those with similar characteristics and opinions in other deprived areas. However, the sheer concentration of deprived individuals in NDC areas may mean that had the Programme not taken place then the extent of individual-level deprivation would have persisted for a greater number of residents.

Understanding individual-level change, a thematic example: area improved in the last two years

- 7.25. Material developed above uses modelled data to show that in general area effects are limited when compared with individual circumstances. But analysis can be taken a stage further in order to unravel how individual-level change occurs. Analysis here concentrates on one particular indicator: the degree to which the area improved in the last two years. In 2006 42 per cent of NDC panel members thought the area had improved in the previous two years. This increase of 18 percentage points on 2002 was greater than the 13 percentage points rise seen for members of the comparator areas' panel. This led to a divergence between the two areas over time with the comparator areas lagging some 13 percentage points behind NDC areas in 2006 by

which time 29 per cent of panel members were noticing improvements in the area over the last two years. This is the only indicator where members of the NDC panel collectively started off in 2002 from a better position than those in the comparator areas and this gap increased over time. It is also the only indicator which shows a positive NDC effect both with, and without, starting position. The base GLM models (Appendix 2) which exclude starting position show significant factors in predicting improving perceptions of the area to include:

- owner occupiers see greater improvement than those in other tenures (for the 2002–04 and the 2002–06 panels)
- white residents see greater improvement than do Asian residents (the 2002–04 panel)
- there are notable differences by age: 16–24 year olds (significant in 2002–04), 25–49 year olds (2002–04 and 2002–06), and 50–59 year olds (2004–06) tend not to see as great an improvement as do those over 60.

7.26. Once starting position is included as a potential predictor of change (Appendix 3):

- owner occupiers see greater improvement than those in other tenures (the 2002–04 panel)
- change is related to age for the 2002–04 panel: the over 60s are significantly more likely to see increase in thinking the area has improved, compared with 16–49 year olds
- the 2004–06 panel indicates white residents achieve less change than other ethnic groups in this period.

7.27. Seeing the area improving in the last two years can be seen as a ‘signature’ indicator of area-based renewal. Attitudes to the changing nature of any area are likely to reflect a multitude of ‘subsidiary’ trends such as say, improvements in environmental problems, quality of housing, community dynamics, fear of crime, and so on. Some of these indicators may not show significant change in relation to comparator areas when considered individually. But when amalgamated into an overarching ‘index of area change’ then it may be possible to identify a collective sense of improvement. This therefore all amounts to positive news as far as the Programme is concerned. Members of the NDC panel are seeing more positive change to their neighbourhood than are those in the comparator areas.

7.28. When analyses unravel factors associated with change, it is intriguing to see the role which tenure seems to play: those in owner-occupation appear to be disproportionately benefiting from NDC interventions. As is developed above this is true with regard to those thinking the area has improved. It is also true for other indicators of change which are not explored in detail here including lawlessness and dereliction, and also satisfaction with the area as a place to live. Because of sample size it is not possible to break down those not in owner occupation into social and private rented tenants. But nevertheless on the broad canvas findings from this evaluation are beginning to suggest that

those in owner-occupation are benefiting more than those who are not. This chimes with other recent evidence, notably that contained in the 2007 'Hills Report', which for instance points to social tenants generally being much less satisfied with their local area than are owner-occupiers⁴⁵. The national evaluation team is to explore this issue in greater detail in 2009.

Concluding comment

7.29. In this chapter the basic descriptive overview of change outlined in the previous chapter has been modelled to take into account socio-demographic characteristics and starting position. Five headline conclusions emerge from these more refined analyses:

- the degree to which those in the NDC panel see more positive change than do those in the comparator areas panel ultimately depends on the data protocols adopted; but as a general rule of thumb the more sophisticated the analysis, the fewer the positive gains for those in the NDC panel
- in common with previous findings emerging from the national evaluation, evidence outlined in this chapter points to the critical role played by starting position in understanding rates and direction of change: the more deprived the individual in 2002 the more likely they were to make positive change by 2006
- the best predictors of differential rates of change are personal characteristics and starting position and not, to a large extent, whether an individual lives either in an NDC area or in a comparator area
- one indicator where there does appear to be a positive 'area' effect, thinking the area has improved in the last two years, suggests that Partnerships are carrying out programmes which culminate in local residents being more positive about their local neighbourhood than are those who remained in the comparator areas
- those in, rather than not in, owner-occupation appear to be enjoying greater rates of change.

⁴⁵ Centre for Analysis of Social Exclusion 2007: Ends and means: the future roles of social housing in England (The Hills Report): CASE Report 34.p. 73 <http://sticerd.lse.ac.uk/dps/case/cr/CASEReport34.pdf>

8. The NDC panel: benefiting from Partnership interventions

Rationale and data sources

- 8.1. The two previous chapters explore relative change across the two panels: that for NDC areas and that for the comparator areas. The overarching conclusion is that once socio-demographic characteristics and starting position are incorporated into analyses then differences in rates of change between the two panels appear limited. This raises policy implications which are explored in the next chapter. But clearly the limited scale of any 'NDC effect' may lead observers to call into question the rationale for intensive ABI activity. However, a more positive slant on NDC activities and associated outcomes emerges from analyses developed in this chapter. Here the focus of attention shifts away from exploring differences between the NDC and the comparator areas panels towards two different populations: those who did, or who did not, benefit from an NDC intervention.
- 8.2. For the 2004 NDC household survey the evaluation team liaised with all 39 Partnerships to identify up to four local projects, based as far as possible on the following criteria:
 - penetration rate: at least 20 per cent of respondents needed to be aware of each project in order to provide sufficient numbers of eligible respondents (around 100) for the follow-up question on impact to be worthwhile
 - projects had to be described in ways local residents would recognise
 - projects needed to be selected from across the six main outcome areas.
- 8.3. All respondents to the 2004 household survey were asked three questions about each of 'their' four local projects:
 - have you heard of any of these (described) local projects which are supported by your local (named) NDC Partnership?
 - have you or anyone in your household directly benefited from, used or attended any of these (named) projects?
 - the extent to which each (named) project has improved the quality of life for you/household/area generally?

An overview of projects and beneficiaries

- 8.4. 150 projects were included in the 2004 household survey: four from 36 Partnerships, three from two and none from one. Five projects have been excluded, as they could not be matched to a specific theme. The remaining projects are outlined in Appendix 6. Initially evidence in relation to all of these 145 projects was matched with data for corresponding entries on the System K system maintained by Cambridge Economic Associates, a constituent member of the consortium. This evidence provided data on spend, duration in years, and specific project type. Projects have been allocated to groups because:
- of sample size: individual projects do not provide sufficient numbers of actual/potential beneficiaries from which to draw any inferences
 - it would not be possible with any confidence to make general conclusions across 145 projects operating in 39 different contexts, but it is possible so to do across interventions grouped by major outcome area.
- 8.5. Projects have therefore been grouped into eight categories: community development, crime and community safety, education, employment, health, environment, housing, and business support. Just over a third of projects fall into crime and community safety and at least 18 into three other categories: community development, education and employment (Table 8.1). Twelve fall into the broad environmental theme. More than 80 of the 145 projects had received funding of at least £500,000 by 2006. In general these are substantial, well established projects.

Table 8.1: Projects by theme and size: 2004

	Size of project				Total
	Small (a)	Medium (b)	Large (c)	Missing (d)	
Crime and community safety	13	22	16	0	51
Community development	12	9	4	1	26
Education	7	2	10	1	20
Employment	5	5	6	2	18
Environment	2	3	6	1	12
Health	5	3	2	1	11
Housing	2	1	3	0	6
Business support	1	0	0	0	1
Total	47	45	47	6	145

Source: System K

Notes: (a) Total spend less than £150,000 up to 2003/4; (b) total spend greater than or equal to £150,000 but less than £500,000 up to 2003/4; (c) total spend greater than or equal to £500,000 up to 2003/4; (d) missing size recoded as 'medium' for purposes of the analysis

- 8.6. Absolute numbers of individuals benefiting or not benefiting from projects vary considerably across the eight themes (Table 8.2). For example, 9,245 respondents from the 2002–2004 panel across 34 NDCs were asked about projects relating to crime and community safety. Of these, 2,434 said they had benefited from, used or attended the project, while the remaining 6,811 said they had not.

Table 8.2: Numbers of respondents benefiting/not benefiting by theme and panel			
	Benefited from, used or attended the project(s)?		
	2002–2004		
	No	Yes	Total
Crime and community safety	6,811	2,434	9,245
Community development	5,419	951	6,370
Environment	1,992	620	2,612
Education	4,197	410	4,607
Employment	4,456	284	4,740
Health	2,682	277	2,959
Housing	1,606	69	1,675
Business support	253	5	258

Source: Ipsos MORI longitudinal panel (2002–04)

Which panel should be used?

- 8.7. Because it is important to identify the degree to which individual-level trajectories change as a result of an intervention named in the 2004 household survey, the 2004–2006 panel is not suitable in that it will not pick up what happened before 2004. But whether to use either, or both, of the 2002–2006, or the 2002–2004, panel is a closer call. The former provides a longer time horizon. However it may be that four years is too long a time period over which to identify change for individuals who had already experienced and benefited from projects fully two years earlier in 2004. The 2002–2006 panel is also only half the size of the 2002–2004 panel. Hence the 2002–2004 panel is more appropriate in that it confines change and benefits to two years. This seems an appropriate time horizon within which to identify relative changes across the two relevant populations: those who have, or have not, benefited from specific projects, some 104 of which had been in existence for two years or more by 2004.
- 8.8. Some caveats should be pointed out here. The evaluation team is not aware of any previous ABI evaluations having access to this depth of ‘beneficiary’ data. As a result analysis inevitably raises a number of methodological queries and uncertainties:
- analysis is rooted in comparing beneficiaries with non-beneficiaries; however the relevant question is based on the self reporting, not just of benefits, but also of usage and attendance, a somewhat broader

definition, but an essential one in order to encompass gains arising from a wide range of different types of projects

- there is a possibility that beneficiaries are more susceptible to making improvement; for instance employment projects beneficiaries may be more 'job ready' and hence more likely to benefit from 'employment projects'; this can to some extent be overcome by including 'suffering from a limiting long standing illness' and 'living in a workless household' variables in relevant modelling (8.24).

- 8.9. Whilst bearing in mind these caveats this individual-level beneficiary data provide a probably unique evidence base from which to address a research question central to all ABIs. **Do interventions within defined regeneration areas help improve individual-level outcomes?**

Analysis and findings

- 8.10. Analysis is based on:
- seven outcome areas: there is only one business support scheme and hence this outcome area has been excluded; the low numbers of beneficiaries from the six housing projects should also be noted
 - exploring two types of change: changing scores (Table 8.3) and also binary changes: from one status to another (Table 8.4)
 - identifying the degree to which those benefiting from particular types of projects saw more positive outcomes in that period 2002–04 when compared with those not benefiting from these projects.

Table 8.3: Improved score: beneficiaries/non-beneficiaries of projects by theme: 2002–2004

	Percentage with improved score 2002–2004		
	Beneficiaries	Non-beneficiaries	Difference
Crime projects (a)			
Fear of crime score	61	56	5
Lawlessness and dereliction score	58	53	5
Number of crimes been a victim	26	24	3
Satisfaction with area	35	31	3
Extent NDC improved area (b)	48	46	2
Environment projects (c)			
Problems with the environment score	51	44	7
Lawlessness and dereliction score	56	53	3
Satisfaction with area	35	32	3
Extent NDC improved area (d)	55	43	12
Community projects (e)			
Feeling part of community	31	31	1
Satisfaction with area	33	31	2
Extent NDC improved area (f)	53	47	6
Housing projects (g)			
Satisfaction with accommodation	14	23	–9
Satisfaction with repair of home	39	29	10
Satisfaction with area	34	31	3
Extent NDC improved area (h)	53	46	7
Health projects (i)			
SF36 mental health score	44	45	0
Ease of seeing GP (j)	34	30	4
Trust in local health services	29	29	0
Satisfaction with area	39	33	6
Extent NDC improved area (k)	59	48	11
Education projects (l)			
Qualifications	27	18	9
Trust in local schools	34	26	8
Satisfaction with area	29	32	–4
Extent NDC improved area (m)	41	42	–1
Employment projects (n)			
Satisfaction with area	32	34	–2
Extent NDC improved area (o)	49	44	5

Source: Ipsos MORI Longitudinal panel (2002–04)

Base: (a) all in NDCs putting forward crime projects – beneficiaries (2434), non-beneficiaries (6811); (b) all heard of NDC, in NDCs putting forward crime projects – beneficiaries (1782), non-beneficiaries (4222); (c) all in NDCs putting forward environment projects – beneficiaries (620), non-beneficiaries (1992); (d) all heard of NDC, in NDCs putting forward environment projects – beneficiaries (429), non-beneficiaries (1170); (e) all in NDCs putting forward community projects – beneficiaries (951), non-beneficiaries (5419); (f) all heard of NDC, in NDCs putting forward community projects – beneficiaries (697), non-beneficiaries (3593); (g) all in NDCs putting forward housing projects – beneficiaries (69), non-beneficiaries (1606); (h) all heard of NDC, in NDCs putting forward housing projects – beneficiaries (64), non-beneficiaries (1161); (i) all in NDCs putting forward health projects – beneficiaries (277), non-beneficiaries (2682); (j) all seen GP in last year, in NDCs putting forward health projects – beneficiaries (205), non-beneficiaries (1933); (k) all heard of NDC, in NDCs putting forward health projects – beneficiaries (181), non-beneficiaries (1616); (l) all in NDCs putting forward education projects – beneficiaries (410), non-beneficiaries (4197); (m) all heard of NDC, in NDCs putting forward education projects – beneficiaries (277), non-beneficiaries (2431); (n) all in NDCs putting forward employment projects – beneficiaries (284), non-beneficiaries (4456); (o) all heard of NDC, in NDCs putting forward employment projects – beneficiaries (240), non-beneficiaries (3084)

Note: **bold** = difference significant at 95 per cent level, calculated using effective base sizes (80 per cent of actual base) as advised by Ipsos MORI

Rows may not sum due to rounding

Table 8.4: Positive binary transitions: beneficiaries/non-beneficiaries of projects by theme: 2002–2004

	Percentage making positive transitions 2002–2004		
	Beneficiaries	Non-beneficiaries	Difference
Community projects			
Influencing local decisions (can't to can) (a)	24	18	7
Involvement in local organisations on a voluntary basis (not involved to involved) (b)	13	7	6
Employment projects			
Employment (not employed to employed) (c)	37	19	18

Source: Ipsos MORI Longitudinal panel (2002–04)

Base: (a) all who don't feel they can influence decisions in 2002, in NDCs putting forward community projects – beneficiaries (668), non-beneficiaries (4168); (b) all not involved in local organisations in 2002, in NDCs putting forward community projects – beneficiaries (755), non-beneficiaries (4748); (c) all working age in both periods and not employed in 2002, in NDCs putting forward employment projects – beneficiaries (141), non-beneficiaries (1530)

Note: **bold** = difference significant at 95 per cent level, calculated using effective base sizes (80 per cent of actual base) as advised by Ipsos MORI

Rows may not sum due to rounding

8.11. Fourteen significant differences emerged between change for those benefiting, as opposed to not benefiting, from projects in that two year period 2002–04. In all but one of these instances those benefiting from projects saw more positive changes than did those who had not benefited. Key headlines include:

- for **crime projects**, beneficiaries showed better outcomes in relation to fear and incidence of crime, perceptions of lawlessness and dereliction, and satisfaction with the area
- for **environmental projects**, beneficiaries saw more positive change in relation to environmental considerations and thinking the NDC has improved the area than did those not benefiting from interventions
- beneficiaries of **community projects** show more positive outcomes than do non beneficiaries in relation to thinking the NDC has improved the area, involvement in local organisations, and believing they can influence local decisions
- the one instance where non-beneficiaries fare better relates to satisfaction with accommodation with regard to **housing projects**: this may well reflect reduced, but conceivably time limited, levels of satisfaction felt by those directly affected by housing refurbishment schemes
- with regard to employment it is especially interesting to see how those benefiting from **worklessness projects** are much more likely to move from not being employed, to being employed, than are those who did not benefit from such projects.

8.12. Using individual-level transitions it is also possible to see the dynamics which underpin aggregate change. Evidence developed immediately above assesses the scale of positive change. Equally so it is also important to identify the

degree to which beneficiaries indicate different rates of worsening scores when compared with non-beneficiaries. There is again a consistent picture: in the 13 instances where there is a statistically significant difference between the rates of worsening across the two population beneficiaries always show lower rates of worsening than do non-beneficiaries (Appendix 7).

Modelling change

- 8.13. A constant theme throughout this report is the importance of modelling data in order to take into account:
- individual-level socio-demographic characteristics which collectively constitute the 'base model': age, sex, ethnicity, qualification, tenure, workless households and household composition
 - and individual-level starting position because individuals with more 'deprived' positions in 2002 tended on average to make greatest positive change through time.
- 8.14. In addition data is also available which allows analysis in this instance to control for:
- the size of projects⁴⁶: to take into account the possibility that larger projects may have a bigger effect
 - the typology of NDCs (2.32) to take into account the possibility that variations in benefits may depend on the type of NDC area.
- 8.15. Analysis is based on 3 models. Base model coefficients show the average expected effect on change in the outcome variable if a respondent is a project beneficiary compared to if they were not a beneficiary, after all other variables in the model have been controlled for. So, for example, a coefficient of 0.69 for being a crime project beneficiary in the 'change in fear of crime score' model implies that on average a crime project beneficiary experienced '0.69 units' more change than a non beneficiary after base demographic factors have been taken into account (Table 8.5). Base plus 2002-score controls for all the socio-demographic factors in the base model plus the starting position in 2002. Finally, a third model takes into account all the factors included in the base plus 2002 score model as well as both the size of projects and also the type of NDC.
- 8.16. Key headlines arising from these GLM models are developed for each outcome area. On average, compared with those that have not benefited, respondents who have benefited from a **crime project**:
- show significantly greater improvement in their fear of crime score
 - show significantly greater improvement in their fear of crime score, when controlling for fear of crime score in 2002

⁴⁶ Defined by project expenditure: small total spend less than £150,000 up to 2003/4; medium total spend greater than or equal to £150,000 but less than £500,000 up to 2003/4; large total spend greater than or equal to £500,000 up to 2003/4

- show significantly greater improvement in their fear of crime score between 2002 and 2004, when controlling for fear of crime score in 2002, typology of NDCs and size of projects
- show significantly greater improvement in their lawlessness and dereliction score
- no statistically significant differences were found between beneficiaries and non-beneficiaries in relation to the number of crimes experienced; this may reflect the fact that fear is far more prevalent than actual rates of crime would justify; there is more room for positive change in relation to fear, rather than experience, of crime.

Table 8.5: General Linear Models: project beneficiaries versus non-beneficiaries: change in pseudo-continuous outcomes: 2002–2004

		Adjusted mean difference: Beneficiary – Non beneficiary		
Type of projects respondent has benefited	Dependent Variable	Base model	Base plus 2002 score	Base plus 2002 score, size of projects and typology
Crime projects	Fear of crime score	0.69	0.50	0.52
	Lawlessness and dereliction score	0.52	–0.01	0.00
	Number of crimes been a victim	0.23	0.12	0.15
Neighbourhood wardens	Fear of crime score	0.82	0.82	0.73
	Lawlessness and dereliction score	0.37	0.09	0.03
	Number of crimes been a victim	0.31	0.17	0.17
Environment projects	Problems with the environment score	0.33	0.32	0.38
	Lawlessness and dereliction score	0.45	0.20	0.35
	Satisfaction with area	0.10	0.12	0.09
Community projects	Extent feel part of community	0.04	0.26	0.23
Housing projects	Satisfaction with accommodation	–0.05	–0.06	–0.06
	Satisfaction with repair of home	0.29	0.09	0.08
Health projects	SF 36 mental health score	–1.93	–1.08	–1.07
	Ease of seeing GP	–0.10	0.04	0.05
	Trust in local health services	0.16	0.11	0.13
Education projects	Trust in local schools	0.10	0.23	0.21

Note: All coefficients have been placed on the same metric. Therefore, a positive score indicates that on average beneficiaries improved more than non-beneficiaries, ceteris paribus. Figures in bold are significant at the 0.05 level.

8.17. Twenty NDC Partnerships selected a neighbourhood wardens scheme as one of their four identified projects. This enables an analysis to be undertaken of outcomes associated with this specific project type rather than solely on the broader classification of 'crime' initiatives. On average, compared with those

that have not benefited, respondents benefiting from a **neighbourhood wardens project**:

- show significantly greater improvement in their fear of crime score; this relationship holds true when controlling for all three models (i.e. base characteristics, base characteristics and 2002 fear of crime score and base characteristics, 2002 fear of crime score, the size of the neighbourhood wardens project and the typology grouping of the NDC)
- show significantly greater improvement in their lawlessness and dereliction score, when controlling for base characteristics.

8.18. Evidence on wardens is of especial interest because it is the only instance where it is possible to comment on the effects of a specific project type rather than on broad categories of interventions. In this context two other findings are of interest. First, including the 2002 score in the model for lawlessness and dereliction reduces the average 'effect' of being a beneficiary: the coefficient is no longer significant. This may imply that neighbourhood wardens' beneficiaries tended to have high lawlessness and dereliction scores in 2002. Perhaps many of these schemes were placed exactly where they should have been: in areas with considerable neighbourhood-level problems. Second, it is interesting to note that although these projects impacted on fear of crime, there were no statistically significant relationships in relation to actual crime.

8.19. On average, compared with those that have not benefited, respondents benefiting from an **environment project**:

- show significantly greater improvement in their problems with the environment score
- show significantly greater improvement in their problems with the environment score, when controlling for problems with the environment score in 2002
- show significantly greater improvement in their problems with the environment score, when controlling for problems with the environment score in 2002, typology of NDCs and size of projects
- show significantly greater improvement in their satisfaction with the area, when controlling for satisfaction with area in 2002
- no statistically significant differences were found between beneficiaries and non-beneficiaries in relation to the lawlessness and dereliction score.

8.20. On average, compared with those that have not benefited, respondents benefiting from a **community project**:

- show significantly greater improvement in their feeling part of the community, when controlling for the extent of feeling part of the community in 2002
- show significantly greater improvement in their extent of feeling part of the community, when controlling for the extent of feeling part of the community in 2002, typology of NDCs and size of projects.

- 8.21. On average, compared with those that have not benefited, respondents benefiting from a **health project**:
- show significantly greater improvement in their trust in local health services, when controlling for trust in local health services in 2002, typology of NDCs, and size of projects
 - no statistically significant differences between beneficiaries and non-beneficiaries were found in relation to mental health score and ease of seeing a GP.
- 8.22. On average, compared with those that have not benefited, respondents benefiting from an **education project**:
- show significantly greater improvement in their trust in local schools, when controlling for trust in local schools in 2002
 - show significantly greater improvement in their trust in local schools between 2002 and 2004, when controlling for trust in local schools in 2002, typology of NDCs and size of projects.
- 8.23. To look at outcomes where respondents may be making a transition from one state to another, as opposed to movement on pre-defined scale, it is necessary to use adjusted odds ratios (ORs). ORs reflect the expected probability of a respondent, who has benefited from a given type of project, making a 'transition' compared to if they had not benefited, after all other factors in the model have been taken into account.
- 8.24. Base characteristics of the model include sex, age, ethnicity, tenure, household composition, qualifications (not for improved qualifications model) and whether or not respondents live in workless households. In the case of a transition from not in, to being in, employment having a long term limiting illness is also included to take into account 'physical ability' to work. One model also includes project size and the NDC typology (Table 8.7).

Table 8.7: Adjusted Logistic Regression Models: project beneficiaries versus non-beneficiaries: Transition models 2002–2004: Adjusted odds ratios

Type of projects respondent has benefited	Dependent variable	Adjusted odds ratios: Beneficiary-Non beneficiary	
		Base	Base plus size and typology
Employment	Not in employment to in employment	2.32	2.53
	In employment to not in employment	1.43	1.40
Education	Improved qualifications	1.47	1.48
Community	Cannot influence to can influence decisions	1.34	1.28
	Not involved, to being involved, in local organisations	1.83	1.80

Note: A positive score indicates that on average beneficiaries improved more than non-beneficiaries, *ceteris paribus*.

Figures in bold are significant at the 0.05 level

- 8.25. In relation to the transition from **not being, to being in, employment** for those not in employment in 2002:
- compared with those not benefiting, working age respondents benefiting from an employment project are statistically significantly more likely to make a transition from not being in, to being in, employment: this holds true for the base model and one that also includes project size and NDC typology.
- 8.26. In relation to **education**:
- compared with those not benefiting, respondents benefiting from an education project are statistically significantly more likely to have made an improvement in their highest qualification; this relationship holds true for both the base model and one that also includes project size and NDC typology grouping.
- 8.27. In relation to **community projects**:
- compared with those not benefiting, respondents benefiting from a community project are statistically significantly more likely to have made a transition from not feeling they can influence decisions in 2002 to being able to influence decisions that affect the local area by 2004: this holds true for the base model and one that also includes project size and NDC typology
 - compared with those not benefiting, respondents benefiting from a community project are statistically significantly more likely to have made a transition from not being involved in a local organisation in 2002 to being involved at 2004: this holds true for the base model and one that also includes project size and NDC typology.
- 8.28. Finally it is worth making the point that **size of some types of project** is impacting on outcomes especially in relation to some place-based indicators:
- individuals in NDC areas where the crime projects included in this analysis were small show, on average, significantly less improvement in their fear of crime and lawlessness and dereliction scores than those in areas where large crime projects were included in the analysis
 - individuals in NDC areas putting forward small community projects are, on average, significantly less likely to make the change to thinking they can influence decisions that affect the local area than those in areas putting forward large community projects.
- 8.29. It is not clear why larger projects make more of an impact than do smaller ones. But it can be hypothesised that larger projects may simply make more impact locally. Therefore more people will know about them; they may be better placed than smaller projects to deliver tailored sustainable interventions; and they may be able to employ more experienced staff.

Concluding comment

- 8.30. The key headline finding in the previous chapter is that once descriptive change data is modelled to take into account socio-demographic characteristics and starting position, there is little to suggest that those constituting the NDC panel subsequently saw greater change than did those in the comparator areas panel. In this chapter the emphasis is placed on comparing outcomes for two different 'NDC panel populations' those who did or did not benefit from NDC interventions between 2002 and 2004. And even after taking into account socio-demographic and other factors there is a clear and persistent pattern: those benefiting from NDC interventions saw more positive outcomes than those who did not. This central finding has direct implications for policy, a theme addressed in the final chapter.

9. Policy implications

9.1. This final chapter explores policy implications arising from analyses contained in earlier sections of this report. Many of the issues explored below are not entirely new: they complement policy conclusions developed in the 2006/07 Programme-Wide report⁴⁷. Four considerations are explored here:

- identifying change, defining success
- understanding change to people in areas
- understanding individual-level change
- reflections on the rationale for ABIs.

Identifying change, defining success

9.2. One of the benefits arising from the panel data is that it provides an insight into the complexities involved in defining success. As the 2007 'Sub National Review' (SNR) indicates there is a need for 'a clear consistent means of appraising and evaluating interventions'⁴⁸. But how should 'success' be defined? Evidence outlined in this report suggests that, solely in relation to panel data there are at least five possibilities from the straightforward to the complex. And interestingly on the broad canvas, the more complex the approach, the less successful the Programme appears to be:

- when the NDC panel is explored on its own with no regard to the comparator areas panel there are signs of positive and significant change for 17 of 26 indicators
- but change in NDC areas needs to be benchmarked against that occurring in comparator areas; when unadjusted change data is used, the NDC panel again appears to be seeing more positive indications of change; for instance the 2002–06 NDC panel enjoyed significant improvement against the comparator areas for 15 indicators, whereas the reverse was true for just six
- but when the relative rates of change between the two panels are adjusted to take into account individual-level socio-demographic factors, then the 2002–06 NDC panel saw statistically significant better outcomes than did the comparator areas panel in relation to just three indicators
- when in addition 'starting position' is taken into account, if anything those constituting the comparator areas panel appear to be seeing marginally more positive outcomes than are those in the NDC areas panel

⁴⁷ CLG 2007 New Deal for Communities: a synthesis of new programme-wide evidence 2006–07, Research Report 39: www.neighbourhood.gov.uk/publications.asp?did=1930.

⁴⁸ HM Treasury, Department for Business, Enterprise and Regulatory Reform, Communities and Local Government 2007 Review of sub-national economic development and regeneration; par 4. 27 www.hm-treasury.gov.uk/media/9/5/subnational_econ_review170707.pdf

- however, to give a final twist to this issue, those who have benefited from NDC interventions appear to see better outcomes than those who have not.

9.3. Some of the wider implications arising from these findings are discussed below. But a more immediate issue merits comment too. The 2007 ‘Sub National Review’ indicates that local authorities ‘need to play a central role in economic development and neighbourhood renewal’⁴⁹. But in planning their neighbourhood renewal strategies local authorities and others will need to monitor progress against objectives. The reality is that few if any, future ABIs will have access to the depth of data available to the NDC evaluation. But this scale of new evidence throws into sharp relief a central conundrum in examining change: it is not possible to identify one, and only one, mechanism through which to assess ‘success’. Ultimately this will depend on the nature of (any) panel and ‘comparator areas’ evidence, and assumptions made about, say, the degree to which change should take on board individual-level starting position. But however the data is cut and whatever ‘success protocols’ are ultimately adopted the principled point remains: **assessing the success of neighbourhood level interventions is contested territory.**

Understanding change to people in places

9.4. Longitudinal panel data provides a rich resource through which to assess relative change across the 39 panels. Using this evidence, as is outlined in Chapter 4, it becomes possible to identify factors which appear to help explain differential rates of change for the ‘NDC stayers’, in these areas. Why do some of these 39 panels enjoy more positive change than others? Four factors merit comment:

- there are now positive relationships between change and spend; panel data shows that at the Partnership-level the greater the crime-related expenditure the greater the reduction in fear of crime; this is the first indication of any relationship between place-based change (housing and the environment, crime and community) and NDC expenditure; it can be seen as direct evidence of a relationship between ‘effort’ or intensity of intervention effected by Partnerships and improving outcomes: it takes time for spend directly to impact on the rate of change
- there is continuing evidence of positive change being associated with the number of overlapping ABIs; this might be seen as obvious in that the more resources and expertise are brought to bear on any area the more change is likely to occur; but in practice many other ABIs are not especially resource rich and it may be that some of this change reflects ‘added value’ synergies arising from having a mix of ABIs operating in the same neighbourhoods: the evidence from this evaluation is that additional

⁴⁹ HM Treasury, Department for Business, Enterprise and Regulatory Reform, Communities and Local Government 2007 Review of sub-national economic development and regeneration; para 6.7
www.hm-treasury.gov.uk/media/9/5/subnational_econ_review170707.pdf

benefits appear to arise from grouping, rather than dispersing, area-based interventions

- it is interesting to note positive relationships between health outcomes and aspects of governance, in this case, the proportion of agencies on Boards; perhaps having more agency expertise, ideas and resources involved in decision-making helps create an institutional framework through which it is easier to introduce positive change
- finally, it is intriguing to see a positive relationship emerging between an increase in the proportion of residents thinking the local NDC has improved the area and total number of board members; there may be an argument here that having a wider membership of regeneration boards helps generate more channels for disseminating good news back to a wider range of residents and for ensuring that in turn 'local voices' are heard at board meetings: size appears to matter; this is perhaps the first time the evaluation has identified any positive relationships between change in 'community attitudes', in this case thinking NDCs improve areas, on the one hand, and questions of governance and decision-making, here size of boards, on the other.

Understanding individual-level change

- 9.5. Analyses of panel data help identify individual-level associations between and across different outcome areas. This provides a clear indication that improvements in some outcome areas are associated with improvements in others. These findings have direct policy relevance. Details of the particular relationships for eight key outcome areas are developed in Chapter 5. No purpose is served in repeating those findings. But four overarching conclusions are worth stressing.
- 9.6. First, especially for place-based indicators there are strong and consistent relationships across that nexus of issues surrounding fear of, and actual crime, environmental perceptions, mental health and trust in local institutions. This can be seen as providing a justification for an holistic approach to ABI policy: improvements in some place-based outcomes are associated with positive change in others.
- 9.7. Second, the last of these outcomes, trust, is interesting in that it is largely based on how panel members view other local institutions and not just NDC Partnerships: positive changes in place-based outcomes appear often to be associated with increasing levels of trust in agencies operating in the 39 areas. This can be seen as further evidence of the importance of NDCs working with delivery agencies to improve overall standards of public service, thus potentially enhancing levels of trust within the community as whole.
- 9.8. Third, evidence unearthed in Chapter 7 points to the degree to which benefits appear to be more obviously apparent for those in, rather than not in, owner-occupation. It is not possible here to indicate precisely why that

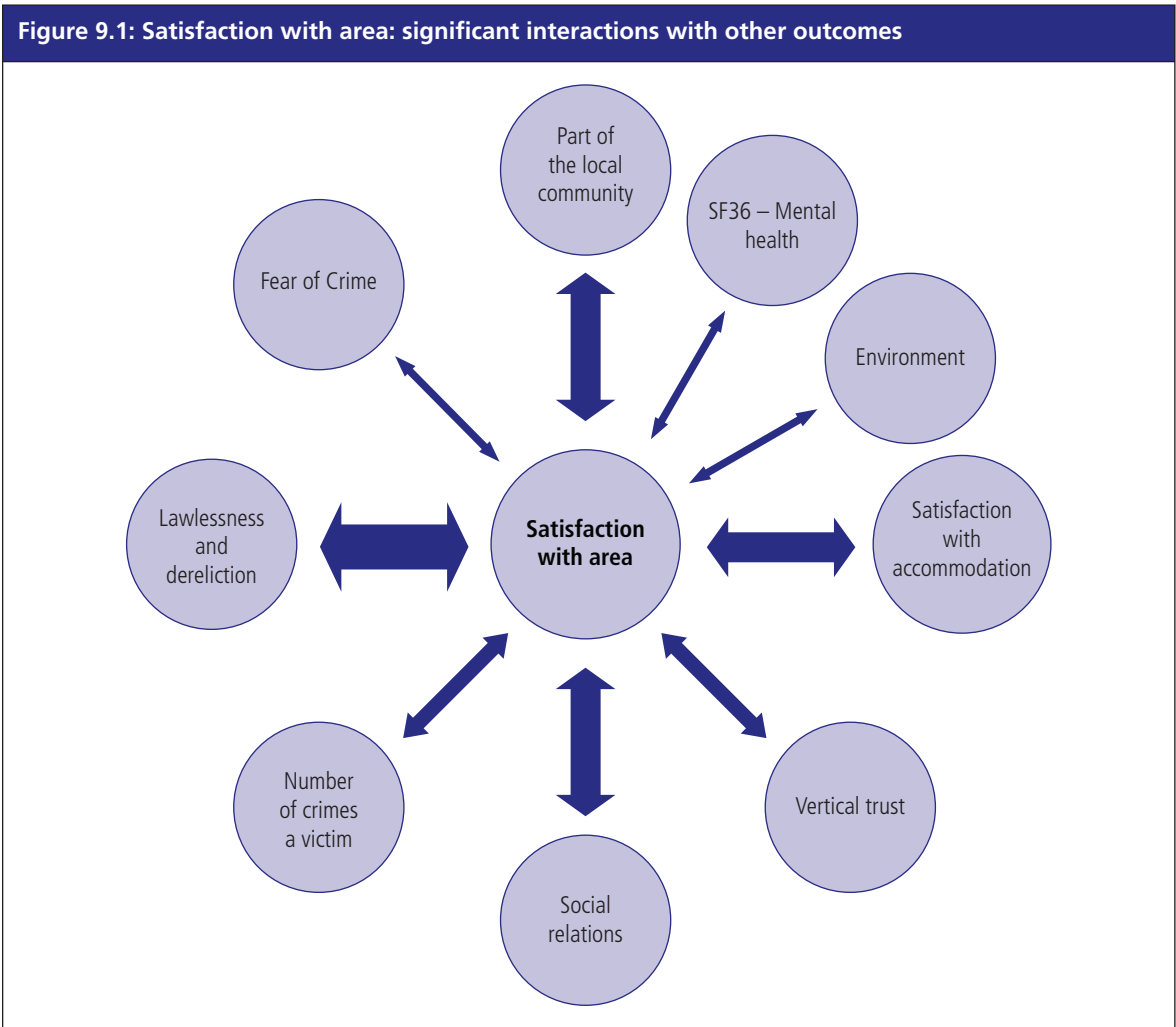
might be so. But the national evaluation team is to investigate this issue in more detail.

9.9. Fourth, few positive relationships with other outcome areas have as yet emerged for two key people-based outcomes: moving into employment and into taking part in education in the last 12 months year. One interpretation of this would be that whereas at the neighbourhood level there is a synergy across place-based outcomes, this is less apparent in relation to change for people-based outcomes which are often more dependent on market and institutional processes operating beyond the immediate neighbourhood. If this is so, it supports other findings emerging from across the evaluation: Partnerships find it easier to help create, and more obviously direct consequences appear to flow from, place, rather than people-based, outcomes. The 'Sub National Review' stresses the need for local authorities to integrate 'economic development with strategies to improve outcomes for people in the most deprived neighbourhoods'⁵⁰. The 2008 CLG *Framework for Regeneration* also places a heavy emphasis on the role of regeneration in improving economic performance, work and enterprise in deprived areas⁵¹. The evidence here however tends to suggest worklessness and education fit less readily into 'area dynamics' than do other, place-based, outcomes. Figures 9.1 and 9.2 provide a visual representation of the degree to which two contrasting outcomes, increased satisfaction with the area, and transition into employment are embedded into neighbourhood-level dynamics. Clearly the former is associated with far more positive relationships than the latter. And in relation to worklessness it is of interest to see a negative relationship between satisfaction with the area and transition into employment. This may be due to a range of factors including:

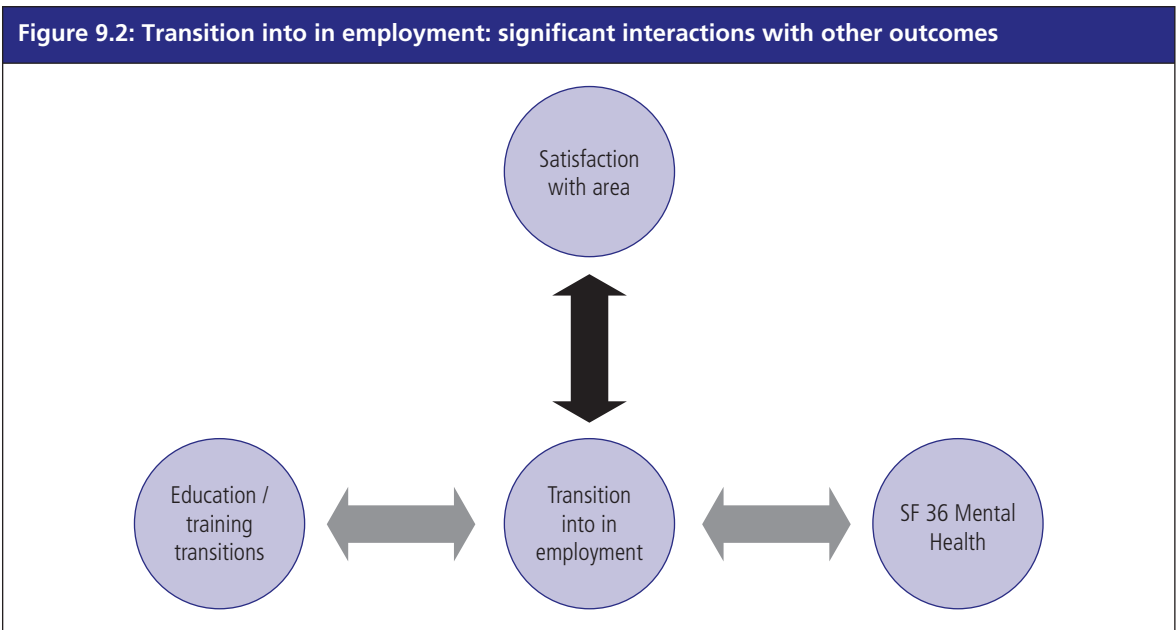
- as people move into jobs they see less to be satisfied with in the local area: perhaps their aspirations rise leading them increasingly to contemplate moving out of these deprived neighbourhoods
- those who are more satisfied with the area may become more 'neighbourhood focussed' and thus less inclined to seek work beyond the immediate area.

⁵⁰ HM Treasury, Department for Business, Enterprise and Regulatory Reform, Communities and Local Government 2007 Review of sub-national economic development and regeneration para 6.18
www.hm-treasury.gov.uk/media/9/5/subnational_econ_review170707.pdf

⁵¹ CLG 2008 Transforming places; changing lives: A framework for regeneration
www.communities.gov.uk/documents/citiesandregions/pdf/896104.pdf



Note: width of each arrow shows the relative effect on change in 'satisfaction with area' score on average arising as a result of an improvement in the score of other outcomes.



Note: width of each arrow shows the relative change in probability of positive transitions into employment arising from a change in the score of other outcomes. Grey indicates positive, black a negative, change

Reflections on a rationale for ABIs

- 9.10. Analyses developed throughout this report, and especially in Chapter 7, raise questions about the rationale for ABIs. Once socio-demographic factors and starting position are fed into models of change, there is little to suggest that NDC panel residents enjoyed greater positive change between 2002 and 2006 than did equivalently deprived individuals in the comparator areas. It might therefore be argued, if residents in relatively well-resourced NDCs do not appear to be seeing better outcomes than those in the comparator areas, what future is there for area-based interventions? Do ABIs have any role to play in addressing neighbourhood level deprivation? This ‘reductionist’ position needs to be set against an array of counter-arguments best addressed within three themes:
- the complexities of the counterfactual
 - areas versus individuals
 - addressing needs in deprived areas.

The complexities of the counterfactual

- 9.11. Assessing the rate of change for the NDC panel against the comparator areas panel raises the complex issue of the counterfactual. The key principle underlying the use of comparator areas as the counterfactual is discussed in Chapter 2. Although a step change improvement when compared with what has been available to previous ABI evaluations, it is not without its problems, three of which are especially relevant here.
- 9.12. First, this is a 10 year programme. Most of the available change data, and all of the household survey evidence, covers just four of these years, 2002–2006. It can confidently be predicted that the relative rates of change for these two panels will not be consistent through time. There are at least two reasons for this, which will tend to work against each other.
- 9.13. One trend may lead to an apparent improvement in the rate of change of NDC areas against the comparator areas. Evidence from both area and panel change data is showing relationships emerging between spend and change. Although a relatively well funded ABI, NDC spend from 1999 up to 2006 amounted to, on average, about £400 per person for each of the six major outcome areas. It is unrealistic to imagine that this relatively limited scale of additional resources will make a major difference in the short term. But as the Programme evolves, the cumulative effects of enhanced spending in NDC areas may well reap an increasing array of benefits.
- 9.14. However, there is a statistical quirk here which will tend to dampen down the degree to which NDCs change both in absolute terms and in relation to the comparator areas. Rates of change may tend to decline because it is not possible for individuals consistently to increase their ‘satisfaction’ levels through time.

- 9.15. Second, there is the conceptual debate addressed elsewhere (2.23) about whether or not change to panels in these two sets of areas should be assessed from a common starting position. If starting position is not included then the NDC panel tends to see more positive benefits than if it is.
- 9.16. Third, it is important to realise that data available to the evaluation team constitutes one take on the counterfactual. In essence it is possible to say what has happened to NDC areas when assessed against other deprived areas which themselves, to varying degrees, have received regeneration resources. The latter are not pure 'scientific controls'. Nevertheless, in the complex world of regeneration, where virtually all deprived neighbourhoods will have received some form of funding, this is as robust an approach to the counterfactual as is ever likely to be created. But it is still not possible to say what would have happened if, for instance:
- NDCs had received all available regeneration funding and the comparator areas none; in such circumstances it is plausible to imagine NDC areas would have performed better than the comparators
 - neither had received any support, where it is also reasonable to suggest that because of the sheer concentration of deprived individuals in NDC areas, it may well have been the case that individual-level problems would have remained as entrenched, or even worsened, because of their concentration at the neighbourhood level.
- 9.17. Hence, although the NDC evaluation has as good a counterfactual as is likely ever to be available to any ABI evaluation, it is far from perfect.

Areas versus individuals

- 9.18. Ultimately the rationale for, and outcomes associated with, ABI designation is rooted in that complex interplay between areas and people. Area-based policy is designed to enhance both individual, but also place-based, outcomes in defined neighbourhoods. This has three implications.
- 9.19. First, this report, in the most part, addresses change to individuals in NDC areas when assessed against change occurring to similarly deprived people in the comparator areas. That is one perfectly legitimate way of assessing change. But this Programme is an area-based initiative. There can be no assumption that 'success' is best measured in relation to what happens to individuals who stay as opposed to what happens to these areas through time. The national evaluation team has reported on area-based change on a number of occasions most recently in 2007⁵². This strand of work has assessed the degree to which NDC areas have changed against comparator areas based largely on the 2002, 2004 and 2006 household surveys. On the broad canvas the key conclusion to this strand of work is that NDC areas have tended to outperform the comparator areas: they have 'closed the gaps'. As an ABI that is an important piece in the overall jigsaw. Some would argue it is the most important. And to complete this circle there is

⁵² New Deal for Communities National Evaluation: An Overview of Change Data: 2006. www.neighbourhood.gov.uk/publications.asp?did=1898

one obvious reason why NDCs appear to be seeing more change than the comparators at the area level. Although individuals in NDC areas have not as yet seen more positive change than have similarly deprived individuals in the comparator areas, there are simply more of them. This ‘density of deprivation’ in NDC neighbourhoods is hidden in individual-level analyses, but not at the area level.

- 9.20. Second, many studies exploring change in defined ‘areas’ conclude that a large proportion of such variation is explained by the personal characteristics of the individuals concerned, rather than anything to do with areas per se. Most empirical studies tend to the view that area effects are actually quite limited⁵³, a conclusion confirmed in work outlined in this report (7.14). Other research has tended to conclude that, although area effects exist, other factors, notably individual or household characteristics, are more important in explaining patterns of deprivation: ‘measurable characteristics of the neighbourhood add little to our ability to explain variation in outcomes, once a full range of individual and family-type variables have been included’⁵⁴.
- 9.21. It should be said that there are alternative views. Some studies suggest area effects may indeed be apparent in certain contexts⁵⁵, a number having found area effects impinging on health outcomes⁵⁶ for example. And there is the experiential argument that some neighbourhoods suffer disproportionately from an inter-related set of problems or ‘externalities’: disproportionate levels of crime, poor public and private services, weak family and community networks, limited contact with wider labour markets, poor quality professional support staff, and so on⁵⁷. It is worth pointing out too that this whole area raises a number of empirically driven questions which further complicate debate⁵⁸. For instance there may be a problem in deciding what is an area, as opposed to an individual, effect. Is ‘unemployment’ for instance best seen as reflecting individual status or at least in part an outcome of area-based influences, such as say limited job search patterns, evident in disadvantaged neighbourhoods?
- 9.22. The debate surrounding ‘poor people or poor places’ has probably been unnecessarily polarised. As the English Indices of Deprivation 2004 points out: ‘deprivation is ultimately experienced by individuals and hence it is theoretically possible to account for the entirety of deprivation by measuring individual experiences of deprivation. However, this does not entail a

⁵³ For instance McCulloch A 2001 Ward level deprivation and individual social and economic outcomes in the British Household Panel Survey; *Environment and Planning A* 33, 667–684; Dietz R D 2002 *Social Science Research* 31, 539–575; Oreopoulos P 2003 The long run consequences of living in a poor neighbourhood, *The Quarterly Journal of Economics*, 118, 1533–1575.

⁵⁴ McCulloch A 2001 Ward level deprivation and individual social and economic outcomes in the British Household Panel Survey; *Environment and Planning A*, 33, 667–684, 681.

⁵⁵ Atkinson R and Kintrea K 2001 Disentangling area effects, evidence from deprived and non deprived neighbourhoods, *Urban Studies*, 38, 2277–2298

⁵⁶ Propper C et al 2007 The impact of neighbourhood on the income and mental health of British social renters: *Urban Studies* 44, 393–415; Katz L F, Kling J R, Leibman J B, 2001, Moving to opportunity in Boston: early results of a randomized mobility experiment, *The Quarterly Journal of Economics*, 116, 607–654.

⁵⁷ For a wider discussion of possible neighbourhood effects see Buck N 2001 Identifying neighbourhood effects on social exclusion, *Urban Studies* 38, 2251–2275.; Dorling D 2001 Anecdote is the singular of data, *Environment and Planning A*, 33, 1335–1340.

⁵⁸ Buck N and Gordon I 2004 Does spatial concentration of disadvantage contribute to social exclusion? in Boddy M and Parkinson M, *City Matters: competitiveness, cohesion and urban governance*, Bristol, Policy Press, 237–254

commitment to the view that individual-level explanations of deprivation can account for the entirety of the causes of deprivation⁵⁹.

- 9.23. Nevertheless, on the broad canvas the argument remains that most relevant research, including new evidence developed here, concludes that it is individual, rather than area, based factors which account for most of the variations in spatial patterns of deprivation. In this context it is unrealistic to imagine that in just four years NDCs would have been able to introduce policies culminating in statistically significant improvements for individuals in the NDC panel compared to what has been happening to those in the comparator areas panel who may well themselves have benefited from similar, albeit not NDC funded, interventions.
- 9.24. In assessing NDC performance it is important to stress therefore that this is an area-based initiative: recording and understanding change will always be embedded in that interplay between poor places and poor people. And as an area-based initiative NDCs do show positive gains against the comparator areas.

Addressing needs in deprived areas

- 9.25. Finally, even if it is accepted that there is as yet little to indicate many differences between equivalently deprived people in these two panels, this should not be taken to imply that ABI policy has in principle no role to play in addressing neighbourhood level disadvantage. It can be argued that ABIs are exactly the right approach to adopt, even if their immediate impact on individual-level outcomes is tenuous. This is because effective area-based programmes:
- may be the most sensible vehicles through which to attack high concentrations of deprived individuals in certain areas
 - can generate cross-cutting synergies amongst delivery services which may well help create the kinds of mutually beneficial outcomes outlined in Chapter 5
 - help build up professional and practice expertise on the neighbourhoods concerned
 - help sustain improvements through time.
- 9.26. It is probably true to say that no previous evaluation of any English ABI has had access to the depth of panel data explored in this report. Where other evaluations have had access to any change data, this has almost always been cross-sectional in nature providing evidence of change to areas through time. Here a complementary approach to assessing change has been explored: what happened to those individuals who stayed in an NDC, or in comparator, area, for at least two years? And the overarching conclusion to emerge from analysis of this individual-level panel data is that it provides a mixed picture of change. On the positive side of the equation, members of the NDC panel saw considerable change, as is developed in Chapter 3 and, as outlined in

⁵⁹ ODPM 2004 The English Indices of Deprivation, 12

Chapter 8, positive associations have also emerged between those who say they benefited from a specific, named NDC project and individual-level outcomes. But on the other side of the equation, as explored in Chapter 7, there is little to suggest that members of the NDC panel saw much more in the way of positive change than did those in the comparator areas.

- 9.27. However, it would be inappropriate at this stage to make too much of these findings not least because the evidence developed in this report covers just four years of a 10 year Programme. The national evaluation team is to revisit changes to the two panels using six years of data (2002–2008), results from which will be developed in final evaluation reports to be published in 2010.

Appendix 1: Composite indices

The national evaluation of New Deal for Communities uses a number of pseudo-continuous composite indices or scores to measure absolute position and change in the various theme areas. These are derived from responses to household survey questions with multiple components and are typically calculated based on three, four or five-point scales of respondents' perceptions.

This appendix provides details of composite indices used in this longitudinal report: fear of crime, lawlessness and dereliction, problems with the environment, social relations, vertical trust, and the SF36 mental health index.

Table A1.1: Composite score for explicit fear of crime

Ipsos MORI Question QCR3:	
Most of us worry at some time or other about being the victim of a crime. Using one of the phrases on this card, could you tell me how worried are you about the following happening to you?	
Nine components included within composite score:	
A Having your home broken into and something stolen	
B Being mugged and robbed	
E Being sexually assaulted	
F Being physically attacked by strangers	
G Being insulted or pestered by anyone while in the street or any other public place	
H Being subject to a physical attack because of your skin colour, ethnic origin or religion	
I Vandalism to your home or car	
J Having somebody distract you or pose as an official (e.g. a meter reader) and steal from your home	
K Being physically attacked by someone you know	
Responses:	Contribution towards composite score
Very worried	4
Fairly worried	3
Not very worried	2
Not at all worried	1
Don't know/Not applicable	0

Table A1.2: Variables included in composite scores for quality of life and problems in the area: lawlessness and dereliction score; problems with the environment score; and social relations score

Ipsos MORI Question QQL3:

I am going to read out a list of things that can cause problems for people in their area. I would like you to tell me whether each of them is a problem in this area?

Ten components included within lawlessness and dereliction composite score:

- D Run down or boarded up properties
- E Abandoned or burnt out cars
- I Vandalism, graffiti and other deliberate damage to property
- K People being attacked or harassed
- L Household burglary
- M Car crime (e.g. damage, theft and joyriding)
- N Teenagers hanging around on the streets
- O Drug dealing and use
- P Property being set on fire
- Q Disturbance from crowds or hooliganism

Two components included within the social relations composite score:

- C Problems with neighbours
- J Racial harassment

Five components included within the local environment composite score:

- A Dogs causing nuisance or mess
- B Litter and rubbish in the streets
- F The speed and volume of road traffic
- G Poor quality or lack of parks or open spaces
- H Poor public transport

Responses:

- A serious problem in this area
- A problem in this area, but not serious
- Not a problem in area
- Don't know

Contribution towards composite score

- 3
- 2
- 1
- 1

Table A1.3: Composite score for vertical trust	
Ipsos MORI Question QCO11:	
How much trust would you say you have in each of the following organisations?	
Four components included within composite score:	
<ul style="list-style-type: none"> A The local council B Local police C Local health services D Local schools 	
Responses:	Contribution towards composite score
A great deal	5
A fair amount	4
Not very much	2
None at all	1
Don't know	3

Table A1.4: SF36 mental health score													
Ipsos MORI Question QHE5:													
These questions are about how you feel and how things have been with you during the past four weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past four weeks.													
Five components included within SF36 mental health score:													
<ul style="list-style-type: none"> A Have you been a very nervous person B Have you felt so down in the dumps that nothing could cheer you up C Have you felt calm and peaceful D Have you felt downhearted and low E Have you been a happy person 													
Responses:	Contribution towards composite score												
	<table border="1"> <thead> <tr> <th>Components A, B & D</th> <th>Components C & E</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5</td> </tr> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>3</td> </tr> <tr> <td>4</td> <td>2</td> </tr> <tr> <td>5</td> <td>1</td> </tr> </tbody> </table>	Components A, B & D	Components C & E	1	5	2	4	3	3	4	2	5	1
Components A, B & D	Components C & E												
1	5												
2	4												
3	3												
4	2												
5	1												
All of the time													
Most of the time													
Some of the time													
A little of the time													
None of the time													

Table A1.5: Board Effectiveness score**2006 Partnership survey:**

Please indicate the extent to which you agree with the following statements concerning NDC board operation over the past 12 months?

Eight components included within composite score:

- Board members are clear about their roles and responsibilities
- members have skills needed to carry out their roles effectively
- adequate training and support are provided for members
- Board members take a strategic and long term view
- members are happy with time commitments required of them
- membership is stable
- relationships within the Board are harmonious
- relationships between the Board and NDC staff are harmonious.

Responses:

Strongly agree

Agree

Neutral / Don't know

Disagree

Strongly disagree

Contribution towards composite score

1

1

0

-1

-1

Appendix 2: General linear models (not adjusting for starting position)

This appendix includes coefficients and p-values from all 15 general linear models (GLM) referred to in this report, not adjusting for starting position.

A range of explanatories are included in the models: gender, ethnicity, household composition, tenure and age.

The models cover three time periods: 2002–04, 2004–06 and 2002–06.

All coefficients are standardised so that a positive value indicates relative improvement and a negative value relative deterioration.

Variable	category	Lawlessness and Dereliction						Environment					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	0.716	0.000	-0.086	0.488	0.520	0.034	0.209	0.007	-0.199	0.002	0.033	0.776
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	-0.089	0.355	0.077	0.401	0.034	0.810	0.001	0.977	-0.067	0.159	-0.037	0.576
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	0.220	0.191	-0.006	0.970	-0.036	0.883	0.091	0.264	-0.098	0.225	-0.026	0.826
	Black	-0.045	0.829	-0.139	0.476	-0.526	0.087	0.257	0.012	-0.084	0.404	0.113	0.439
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.221	0.192	-0.124	0.431	0.053	0.832	-0.039	0.634	-0.094	0.249	-0.146	0.217
	Couple with dependent children	-0.023	0.896	0.247	0.130	-0.104	0.690	-0.093	0.273	0.182	0.031	0.067	0.586
	Lone parent family	-0.199	0.278	-0.010	0.953	-0.189	0.489	-0.018	0.836	0.015	0.870	-0.092	0.480
	Single person household	-0.039	0.810	-0.276	0.066	-0.219	0.357	-0.123	0.116	-0.104	0.181	-0.195	0.083
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.295	0.003	-0.089	0.338	-0.413	0.004	-0.096	0.045	-0.155	0.001	-0.180	0.008
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.429	0.021	-0.426	0.044	-0.617	0.106	-0.455	0.000	-0.177	0.106	-0.424	0.019
	25–49	-0.488	0.000	-0.300	0.013	-0.586	0.002	-0.216	0.001	-0.152	0.015	-0.290	0.001
	50–59	-0.103	0.471	-0.070	0.603	0.033	0.867	-0.097	0.162	-0.062	0.368	-0.043	0.648
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.015	0.868	0.091	0.307			-0.044	0.316	0.059	0.204		
		0.000	.	0.000	.			0.000	.	0.000	.		

Variable	category	Social Relations						Vertical Trust					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	0.079	0.011	0.032	0.205	0.062	0.182	0.138	0.198	-0.236	0.008	-0.139	0.387
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	0.006	0.747	-0.015	0.432	0.035	0.190	0.000	0.994	0.050	0.453	-0.062	0.504
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	-0.018	0.576	-0.062	0.052	-0.130	0.005	-0.149	0.186	0.162	0.146	0.036	0.821
	Black	0.043	0.292	-0.101	0.011	-0.050	0.387	-0.027	0.848	0.221	0.115	0.213	0.289
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.021	0.529	-0.070	0.029	-0.085	0.071	0.179	0.115	0.017	0.882	0.316	0.053
	Couple with dependent children	0.050	0.141	-0.008	0.821	-0.003	0.947	-0.061	0.604	0.055	0.639	0.245	0.150
	Lone parent family	0.020	0.576	-0.063	0.074	0.021	0.681	-0.192	0.118	-0.118	0.346	-0.027	0.882
	Single person household	0.014	0.661	-0.090	0.003	-0.130	0.004	0.027	0.801	-0.003	0.978	0.353	0.023
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.022	0.250	-0.010	0.581	-0.050	0.064	-0.104	0.114	-0.045	0.499	-0.247	0.008
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.034	0.347	-0.053	0.217	-0.013	0.854	0.147	0.238	-0.016	0.916	0.056	0.822
	25–49	-0.067	0.007	-0.066	0.007	-0.137	0.000	0.072	0.402	0.037	0.669	0.112	0.363
	50–59	0.019	0.490	-0.065	0.018	-0.066	0.080	-0.046	0.628	-0.089	0.353	-0.054	0.679
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.047	0.007	-0.014	0.429			0.048	0.421	-0.115	0.073		
				0.000				0.000		0.000			

Variable	category	Feel safe walking alone after dark						Part of community					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	0.073	0.130	-0.034	0.394	-0.030	0.681	0.063	0.213	-0.063	0.130	-0.097	0.202
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	-0.027	0.345	-0.024	0.417	-0.037	0.383	-0.034	0.255	0.012	0.686	-0.057	0.188
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	-0.045	0.378	0.022	0.658	-0.048	0.515	-0.059	0.269	-0.034	0.519	-0.044	0.558
	Black	-0.011	0.859	0.002	0.973	-0.137	0.133	0.057	0.390	0.074	0.259	0.201	0.034
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.031	0.536	-0.037	0.463	-0.007	0.927	-0.015	0.782	0.083	0.116	0.120	0.119
	Couple with dependent children	0.089	0.089	0.041	0.438	0.105	0.174	0.016	0.776	-0.040	0.465	0.090	0.261
	Lone parent family	0.027	0.618	0.063	0.258	0.118	0.148	-0.017	0.768	0.055	0.344	0.119	0.160
	Single person household	-0.065	0.181	-0.036	0.460	-0.091	0.197	-0.013	0.800	-0.009	0.859	0.101	0.171
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.046	0.120	-0.021	0.485	-0.126	0.003	0.032	0.307	0.077	0.014	0.055	0.209
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.066	0.239	0.057	0.401	0.138	0.225	-0.009	0.882	0.036	0.614	-0.082	0.489
	25–49	-0.094	0.014	-0.046	0.238	-0.107	0.056	0.025	0.542	0.057	0.155	0.046	0.428
	50–59	-0.040	0.353	-0.083	0.054	-0.165	0.006	-0.004	0.929	-0.022	0.629	-0.029	0.636
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.035	0.192	-0.043	0.137			0.047	0.094	-0.036	0.232		
		0.000	.	0.000	.			0.000	.	0.000	.		

Variable	category	People friendly						Satisfied with accommodation					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	0.031	0.359	0.027	0.333	0.027	0.587	-0.053	0.159	-0.025	0.420	-0.014	0.811
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	-0.035	0.087	0.007	0.733	-0.024	0.395	-0.004	0.870	-0.006	0.794	-0.011	0.735
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	0.012	0.733	-0.005	0.893	-0.001	0.989	-0.012	0.763	0.009	0.820	-0.010	0.867
	Black	0.049	0.271	0.004	0.926	-0.013	0.840	0.049	0.322	0.043	0.389	0.015	0.836
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	-0.011	0.749	0.051	0.153	-0.030	0.556	0.016	0.687	-0.020	0.614	-0.112	0.053
	Couple with dependent children	-0.009	0.816	0.044	0.234	-0.057	0.285	0.029	0.479	-0.073	0.080	-0.019	0.753
	Lone parent family	-0.046	0.238	0.038	0.331	-0.032	0.570	-0.083	0.056	-0.065	0.142	-0.136	0.033
	Single person household	0.005	0.894	0.035	0.311	-0.026	0.594	-0.024	0.530	-0.065	0.090	-0.109	0.048
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	0.033	0.111	0.011	0.604	0.047	0.102	-0.054	0.021	-0.012	0.613	0.000	0.992
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	0.051	0.196	0.067	0.163	0.036	0.642	-0.099	0.023	-0.100	0.064	-0.106	0.232
	25–49	0.021	0.432	0.012	0.657	0.029	0.443	-0.068	0.025	-0.041	0.185	-0.136	0.002
	50–59	-0.009	0.772	-0.003	0.923	-0.030	0.463	-0.003	0.940	0.006	0.865	-0.004	0.931
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.079	0.000	0.011	0.602	0.022	0.300	0.022	0.300	0.075	0.001	0.000	0.000

Variable	category	Satisfied with repair of accommodation						Satisfied with area					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	-0.010	0.827	0.011	0.763	0.035	0.622	0.132	0.004	0.063	0.077	0.190	0.005
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	-0.032	0.244	0.006	0.841	-0.051	0.207	-0.005	0.853	-0.025	0.350	-0.021	0.589
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	-0.052	0.275	0.031	0.511	-0.058	0.407	0.038	0.428	0.019	0.676	0.119	0.078
	Black	-0.013	0.822	-0.012	0.837	-0.073	0.408	0.020	0.735	0.028	0.620	0.124	0.144
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.060	0.207	-0.058	0.230	-0.062	0.386	0.083	0.084	-0.015	0.747	0.025	0.719
	Couple with dependent children	0.044	0.373	-0.042	0.397	-0.014	0.852	0.022	0.656	0.048	0.307	-0.002	0.982
	Lone parent family	-0.023	0.662	-0.087	0.099	-0.198	0.012	-0.032	0.538	-0.007	0.892	-0.069	0.362
	Single person household	-0.002	0.964	-0.128	0.005	-0.121	0.074	0.020	0.661	0.025	0.568	-0.012	0.853
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	0.019	0.493	-0.006	0.843	0.060	0.143	-0.076	0.006	-0.021	0.435	-0.090	0.022
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.105	0.046	-0.004	0.946	-0.134	0.220	-0.080	0.128	-0.024	0.695	0.117	0.267
	25–49	-0.049	0.178	-0.086	0.020	-0.102	0.058	-0.130	0.000	-0.049	0.160	-0.091	0.081
	50–59	-0.016	0.697	-0.056	0.173	0.011	0.841	-0.128	0.002	-0.065	0.091	-0.057	0.298
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.056	0.028	0.011	0.677			0.040	0.118	0.040	0.121		
		0.000	.	0.000	.			0.000	.	0.000	.		

		Number of crimes					
		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig
Variable	category						
Study group	NDC	−0.100	0.573	0.012	0.945	−0.199	0.530
	Comparator	0.000	.	0.000	.	0.000	.
Gender	Male	0.246	0.021	0.068	0.604	0.392	0.031
	Female	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	−0.031	0.868	0.327	0.139	−0.105	0.741
	Black	−0.254	0.277	0.457	0.099	−0.283	0.474
	“Asian”	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	−0.243	0.199	0.286	0.201	0.392	0.223
	Couple with dependent children	−0.233	0.233	0.042	0.856	0.145	0.665
	Lone parent family	0.072	0.723	−0.003	0.991	0.440	0.212
	Single person household	−0.397	0.027	0.149	0.487	0.116	0.704
	Large adult household	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	−0.056	0.607	0.176	0.183	0.420	0.022
	Yes	0.000	.	0.000	.	0.000	.
Age group	16–24	−0.224	0.279	0.109	0.717	−0.426	0.387
	25–49	−0.205	0.151	−0.113	0.510	−0.128	0.597
	50–59	−0.006	0.968	−0.001	0.997	0.091	0.724
	60+	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.266	0.008	−0.015	0.907		
		0.000	.	0.000	.		

Appendix 3: General linear models (adjusting for starting position)

This appendix includes coefficients and p-values from all 15 general linear models (GLM) referred to in this report, adjusting for starting position.

A range of explanatories are included in the models: gender, ethnicity, household composition, tenure and age.

The models cover three time periods: 2002–04, 2004–06 and 2002–06.

All coefficients are standardised so that a positive value indicates relative improvement and a negative value relative deterioration.

Variable	category	Lawlessness and Dereliction						Environment					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	-0.124	0.347	-0.496	0.000	-0.511	0.006	0.013	0.845	-0.290	0.000	-0.182	0.053
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	-0.056	0.481	0.088	0.250	0.025	0.811	0.206	0.000	0.132	0.001	0.137	0.011
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	-0.162	0.244	-0.239	0.064	-0.374	0.044	-0.084	0.221	-0.230	0.001	-0.224	0.017
	Black	0.279	0.107	0.188	0.247	0.094	0.685	0.228	0.007	0.019	0.816	0.111	0.343
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.103	0.463	-0.047	0.718	-0.139	0.460	-0.094	0.174	-0.132	0.051	-0.189	0.047
	Couple with dependent children	-0.037	0.799	0.212	0.119	-0.062	0.754	-0.200	0.005	0.047	0.505	0.033	0.738
	Lone parent family	-0.252	0.096	-0.137	0.343	-0.293	0.156	-0.184	0.013	-0.152	0.042	-0.193	0.066
	Single person household	0.189	0.156	-0.006	0.962	0.036	0.842	0.065	0.320	0.067	0.303	0.075	0.411
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.341	0.000	-0.220	0.004	-0.420	0.000	-0.029	0.463	-0.097	0.015	-0.114	0.037
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-1.672	0.000	-1.456	0.000	-2.019	0.000	-0.620	0.000	-0.408	0.000	-0.517	0.000
	25–49	-1.541	0.000	-1.236	0.000	-1.624	0.000	-0.497	0.000	-0.449	0.000	-0.544	0.000
	50–59	-0.927	0.000	-0.876	0.000	-0.978	0.000	-0.290	0.000	-0.310	0.000	-0.310	0.000
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.039	0.601	0.140	0.060	-0.045	0.221	0.015	0.690	0.015	0.690	0.015	0.690
		0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Previous score		0.520	0.000	0.509	0.000	0.632	0.000	0.561	0.000	0.571	0.000	0.622	0.000

Variable	category	Social Relations						Vertical Trust					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	-0.009	0.714	-0.022	0.290	-0.002	0.964	0.021	0.819	-0.225	0.003	-0.178	0.184
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	0.014	0.360	0.012	0.452	0.017	0.406	-0.104	0.053	-0.081	0.148	-0.192	0.013
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	0.046	0.088	-0.010	0.712	-0.042	0.252	-0.583	0.000	-0.357	0.000	-0.368	0.006
	Black	0.099	0.003	-0.012	0.719	0.002	0.967	-0.391	0.001	-0.177	0.138	-0.115	0.493
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.018	0.510	-0.047	0.076	-0.079	0.035	-0.067	0.483	-0.075	0.438	0.040	0.772
	Couple with dependent children	0.029	0.304	-0.003	0.910	0.001	0.986	0.102	0.301	0.239	0.017	0.432	0.002
	Lone parent family	-0.024	0.417	-0.071	0.015	-0.059	0.146	0.025	0.808	0.027	0.802	0.168	0.262
	Single person household	0.012	0.638	-0.070	0.005	-0.113	0.001	-0.118	0.195	-0.078	0.397	0.141	0.277
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.047	0.003	-0.041	0.009	-0.073	0.001	0.066	0.234	0.046	0.416	-0.095	0.220
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.200	0.000	-0.193	0.000	-0.246	0.000	-0.145	0.165	-0.329	0.011	-0.341	0.103
	25–49	-0.217	0.000	-0.212	0.000	-0.275	0.000	-0.292	0.000	-0.265	0.000	-0.258	0.012
	50–59	-0.093	0.000	-0.163	0.000	-0.175	0.000	-0.316	0.000	-0.385	0.000	-0.406	0.000
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1–W2–W3	0.054	0.000	-0.007	0.650	0.116	0.021	0.116	0.021	-0.059	0.280	-0.598	0.000
	Previous score	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	0.000
	Previous score	0.629	0.000	0.636	0.000	0.709	0.000	-0.570	0.000	-0.552	0.000	-0.598	0.000

Variable	category	SF36 Mental Health						Fear of Crime					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	-0.931	0.123	0.342	0.489	1.372	0.122	-0.269	0.186	-0.577	0.001	-0.670	0.028
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	2.003	0.000	1.766	0.000	1.261	0.015	1.561	0.000	1.493	0.000	1.278	0.000
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	-0.105	0.872	2.107	0.001	2.505	0.006	0.121	0.574	0.303	0.156	-0.345	0.258
	Black	0.887	0.272	4.015	0.000	4.420	0.000	-0.044	0.870	0.276	0.303	-0.362	0.341
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.659	0.306	0.064	0.919	0.396	0.662	-0.095	0.661	-0.101	0.639	0.091	0.769
	Couple with dependent children	0.855	0.199	0.815	0.212	1.051	0.267	0.122	0.583	0.431	0.055	0.516	0.110
	Lone parent family	-0.341	0.624	0.746	0.283	0.767	0.441	0.332	0.155	0.273	0.252	0.203	0.549
	Single person household	-0.558	0.362	0.520	0.388	0.947	0.273	0.186	0.364	0.152	0.461	0.553	0.060
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-2.715	0.000	-3.505	0.000	-2.972	0.000	-0.156	0.214	-0.349	0.006	-0.082	0.641
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.543	0.439	-0.078	0.927	-0.469	0.735	-1.138	0.000	-0.446	0.124	-0.760	0.109
	25–49	-2.509	0.000	-1.395	0.004	-1.648	0.016	-1.267	0.000	-1.286	0.000	-1.545	0.000
	50–59	-2.487	0.000	-3.341	0.000	-3.609	0.000	-1.161	0.000	-1.016	0.000	-1.221	0.000
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1–W2–W3	0.697	0.041	0.471	0.188			0.145	0.206	0.027	0.825		
		0.000	.	0.000	.			0.000	.	0.000	.		
Previous score		-0.508	0.000	-0.524	0.000	-0.584	0.000	0.515	0.000	0.536	0.000	0.610	0.000

Variable	category	Feel safe walking alone after dark						Part of community					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	-0.051	0.217	-0.080	0.020	-0.143	0.020	0.010	0.817	-0.080	0.021	-0.087	0.159
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	0.449	0.000	0.434	0.000	0.494	0.000	-0.017	0.493	-0.004	0.868	-0.037	0.297
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	0.050	0.250	0.111	0.010	0.070	0.255	-0.245	0.000	-0.208	0.000	-0.227	0.000
	Black	0.236	0.000	0.229	0.000	0.189	0.015	-0.093	0.088	0.020	0.718	0.050	0.514
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	-0.043	0.327	-0.051	0.240	-0.087	0.163	-0.074	0.095	0.047	0.281	0.036	0.564
	Couple with dependent children	0.041	0.373	0.054	0.232	0.046	0.478	0.039	0.390	0.056	0.215	0.096	0.139
	Lone parent family	0.041	0.392	0.107	0.026	0.123	0.074	-0.049	0.303	0.056	0.243	0.069	0.318
	Single person household	-0.061	0.142	-0.057	0.174	-0.080	0.182	-0.075	0.073	-0.023	0.575	0.009	0.886
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.060	0.020	-0.069	0.007	-0.150	0.000	0.002	0.936	0.019	0.452	0.007	0.851
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	0.265	0.000	0.289	0.000	0.393	0.000	-0.237	0.000	-0.240	0.000	-0.316	0.001
	25–49	0.208	0.000	0.199	0.000	0.219	0.000	-0.109	0.001	-0.112	0.001	-0.132	0.005
	50–59	0.137	0.000	0.107	0.004	0.078	0.121	-0.062	0.095	-0.109	0.004	-0.119	0.018
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.054	0.020	-0.009	0.719	0.087	0.000	0.087	0.000	0.009	0.703	-0.673	0.000
		0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	-0.611	0.000
Previous score		-0.516	0.000	-0.505	0.000	-0.575	0.000	-0.629	0.000	-0.611	0.000	-0.673	0.000

Variable	category	People friendly						Satisfied with accommodation					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	-0.025	0.370	0.003	0.900	-0.001	0.989	-0.091	0.004	-0.072	0.008	-0.056	0.236
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	-0.045	0.008	-0.017	0.329	-0.031	0.191	-0.006	0.761	0.001	0.979	-0.023	0.390
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	0.026	0.385	0.052	0.081	0.020	0.630	0.115	0.001	0.126	0.000	0.131	0.006
	Black	-0.054	0.140	-0.055	0.142	-0.111	0.030	-0.113	0.007	-0.066	0.121	-0.118	0.047
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.003	0.912	0.056	0.062	-0.028	0.500	0.040	0.239	0.014	0.682	-0.032	0.508
	Couple with dependent children	0.017	0.585	0.055	0.081	-0.013	0.769	-0.065	0.066	-0.124	0.001	-0.075	0.136
	Lone parent family	-0.021	0.515	0.030	0.370	-0.010	0.828	-0.184	0.000	-0.162	0.000	-0.191	0.000
	Single person household	-0.011	0.695	0.008	0.777	-0.041	0.300	0.003	0.923	-0.015	0.640	-0.059	0.202
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.022	0.194	-0.035	0.050	-0.028	0.242	-0.305	0.000	-0.286	0.000	-0.287	0.000
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.155	0.000	-0.076	0.062	-0.131	0.040	-0.226	0.000	-0.197	0.000	-0.216	0.004
	25–49	-0.107	0.000	-0.094	0.000	-0.106	0.001	-0.222	0.000	-0.203	0.000	-0.299	0.000
	50–59	-0.069	0.006	-0.081	0.002	-0.101	0.003	-0.119	0.000	-0.122	0.000	-0.170	0.000
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1–W2–W3	0.073	0.000	0.031	0.068			0.046	0.011	0.054	0.006		
		0.000	.	0.000	.			0.000	.	0.000	.		
Previous score		-0.617	0.000	-0.583	0.000	-0.638	0.000	-0.570	0.000	-0.568	0.000	-0.635	0.000

Variable	category	Satisfied with repair of accommodation						Satisfied with area					
		W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Study group	NDC	-0.085	0.022	-0.056	0.074	-0.036	0.517	-0.035	0.344	-0.004	0.887	-0.009	0.873
	Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender	Male	0.000	0.995	0.018	0.436	-0.016	0.620	0.035	0.119	0.011	0.635	0.024	0.440
	Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	0.065	0.097	0.093	0.018	0.093	0.095	-0.089	0.024	-0.051	0.179	-0.017	0.756
	Black	-0.112	0.022	-0.129	0.009	-0.180	0.010	-0.028	0.567	0.033	0.482	0.085	0.210
	"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	0.136	0.001	0.064	0.108	0.087	0.123	0.006	0.889	-0.027	0.488	-0.049	0.373
	Couple with dependent children	0.025	0.545	-0.061	0.138	0.000	0.996	-0.026	0.520	0.018	0.652	-0.010	0.864
	Lone parent family	-0.075	0.082	-0.155	0.000	-0.193	0.002	-0.102	0.017	-0.069	0.102	-0.114	0.059
	Single person household	0.059	0.121	-0.020	0.607	-0.024	0.662	0.029	0.442	0.031	0.392	0.009	0.869
	Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.360	0.000	-0.368	0.000	-0.379	0.000	0.017	0.450	0.015	0.513	-0.001	0.973
	Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.263	0.000	-0.181	0.001	-0.254	0.004	-0.259	0.000	-0.167	0.001	-0.122	0.148
	25–49	-0.245	0.000	-0.263	0.000	-0.317	0.000	-0.226	0.000	-0.169	0.000	-0.209	0.000
	50–59	-0.150	0.000	-0.199	0.000	-0.221	0.000	-0.187	0.000	-0.164	0.000	-0.167	0.000
	60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.031	0.147	0.014	0.528	0.070	0.001	0.070	0.001	0.035	0.112	0.000	0.000
	Previous score	-0.601	0.000	-0.614	0.000	-0.691	0.000	-0.583	0.000	-0.542	0.000	-0.643	0.000

Variable	Quality of life good						Area improved in last 2 years							
	W1 to W2		W2 to W3		W1 to W3		W1 to W2		W2 to W3		W1 to W3			
	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig		
Study group														
NDC	-0.046	0.107	-0.040	0.086	-0.055	0.192	0.000	0.000	0.279	0.000	0.225	0.000	0.366	0.000
Comparator	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Gender														
Male	-0.030	0.073	-0.035	0.045	-0.037	0.125	0.000	0.000	-0.002	0.929	0.044	0.058	0.009	0.783
Female	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Self reported ethnicity														
White	0.047	0.112	0.041	0.160	0.080	0.058	0.000	0.000	-0.043	0.316	-0.090	0.023	-0.022	0.714
Black	0.012	0.755	0.047	0.209	0.063	0.233	0.000	0.000	0.035	0.510	0.035	0.481	0.068	0.370
"Asian"	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Household composition														
Couple, no dependent children	0.012	0.682	0.092	0.002	0.071	0.097	0.000	0.000	-0.003	0.945	0.035	0.371	0.057	0.350
Couple with dependent children	-0.047	0.127	0.070	0.024	0.047	0.288	0.000	0.000	-0.024	0.582	0.034	0.402	-0.024	0.702
Lone parent family	-0.063	0.052	-0.020	0.535	-0.023	0.631	0.000	0.000	0.011	0.818	0.058	0.187	-0.007	0.912
Single person household	-0.068	0.018	-0.008	0.784	-0.026	0.529	0.000	0.000	-0.052	0.191	0.022	0.549	-0.013	0.824
Large adult household	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Owner occupier														
No/NR	-0.143	0.000	-0.133	0.000	-0.144	0.000	0.000	0.000	-0.074	0.002	-0.015	0.515	-0.065	0.061
Yes	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Age group														
16–24	0.004	0.907	0.086	0.031	0.105	0.108	0.000	0.000	-0.145	0.003	0.035	0.547	0.007	0.947
25–49	-0.072	0.001	-0.052	0.023	-0.028	0.383	0.000	0.000	-0.106	0.001	0.004	0.887	-0.073	0.117
50–59	-0.081	0.001	-0.154	0.000	-0.141	0.000	0.000	0.000	-0.008	0.809	-0.045	0.172	-0.015	0.762
60+	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000	.
Link														
W1–W2–W3	0.035	0.027	-0.007	0.684			0.002	0.002	0.071	0.002	-0.052	0.025		
Previous score	0.000	.	0.000	.			0.000	.	0.000	.	0.000	.		
Score	-0.660	0.000	-0.638	0.000	-0.692	0.000	0.000	0.000	-1.289	0.000	-1.079	0.000	-1.456	0.000

		Number of crimes					
		W1 to W2		W2 to W3		W1 to W3	
		Coef	Sig	Coef	Sig	Coef	Sig
Variable	category						
Study group	NDC	-0.089	0.494	0.006	0.965	-0.124	0.615
	Comparator	0.000	.	0.000	.	0.000	.
Gender	Male	0.085	0.277	0.086	0.430	0.209	0.139
	Female	0.000	.	0.000	.	0.000	.
Self reported ethnicity	White	-0.129	0.350	0.235	0.200	-0.210	0.393
	Black	0.087	0.612	0.609	0.008	0.032	0.917
	"Asian"	0.000	.	0.000	.	0.000	.
Household composition	Couple, no dependent children	-0.161	0.245	0.196	0.294	0.401	0.109
	Couple with dependent children	-0.021	0.883	0.134	0.488	0.430	0.099
	Lone parent family	-0.269	0.073	-0.294	0.153	0.036	0.896
	Single person household	-0.237	0.072	-0.054	0.763	0.208	0.383
	Large adult household	0.000	.	0.000	.	0.000	.
Owner occupier	No/NR	-0.136	0.092	0.004	0.974	0.243	0.088
	Yes	0.000	.	0.000	.	0.000	.
Age group	16–24	-0.944	0.000	-0.995	0.000	-1.593	0.000
	25–49	-0.834	0.000	-0.854	0.000	-0.853	0.000
	50–59	-0.320	0.006	-0.519	0.001	-0.463	0.021
	60+	0.000	.	0.000	.	0.000	.
Link	W1-W2-W3	0.139	0.059	0.033	0.757		
		0.000	.	0.000	.		
Previous score		0.814	0.000	0.860	0.000	0.869	0.000

Appendix 4: Multilevel modelling – area satisfaction, and lawlessness and dereliction

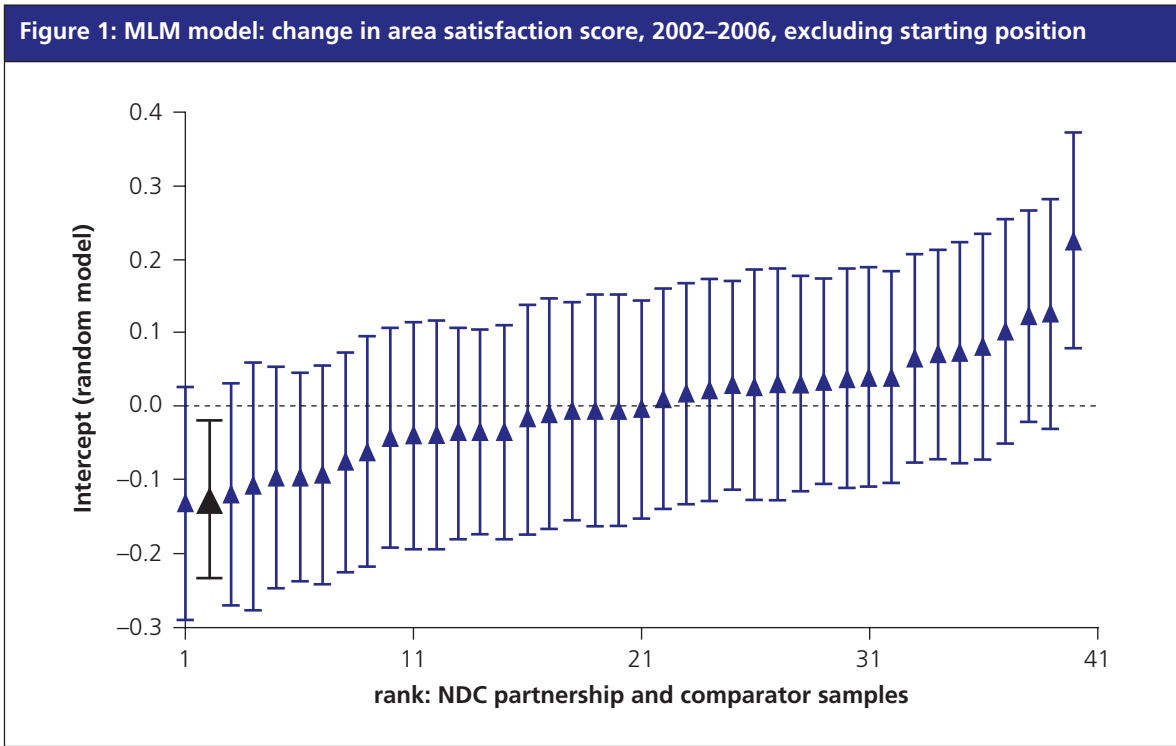
One example of multi-level modelling is developed in Chapter 6. Others have been completed by the national evaluation team two of which are outlined here.

In relation to **area satisfaction** from 2002–2006, the first model which **does not include starting position** (Figure 1) indicates:

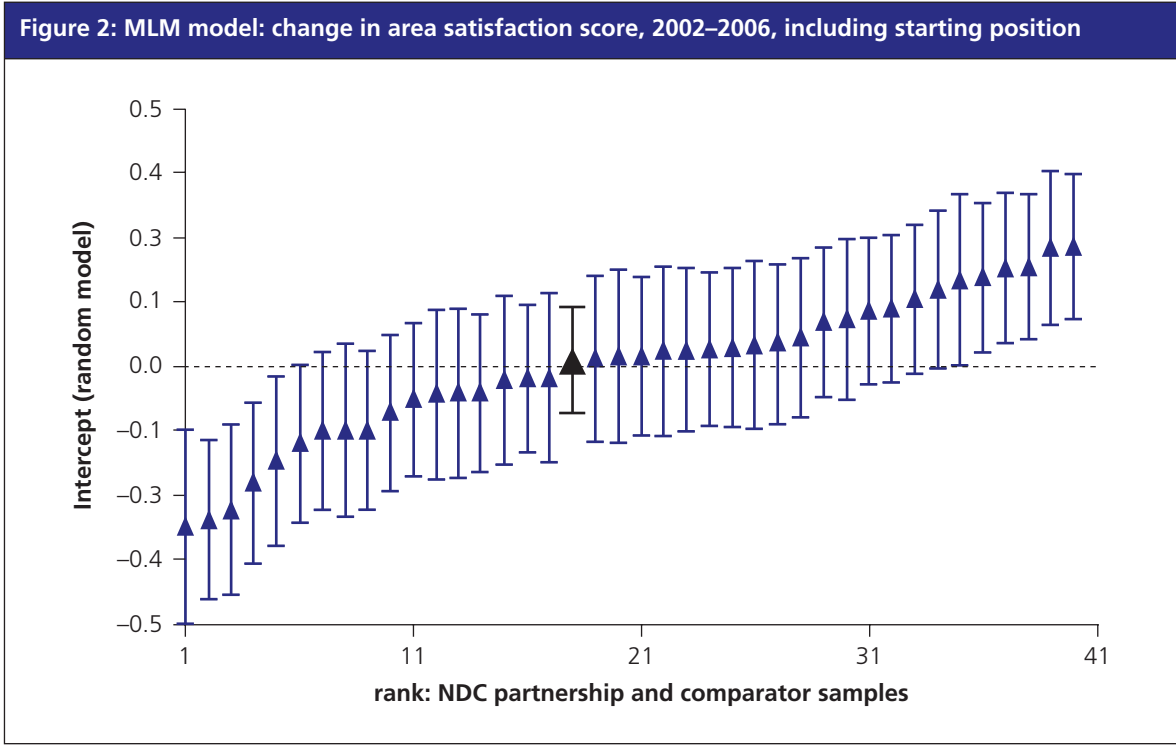
- the comparator area is significantly below the average (0.0) line
- there is considerable variation across the 39
- no significant difference across most NDC areas apart from one on the far right which is significantly different from the average and about five to the left of chart
- the level 1 individual-level variance of 1.9 (SE 0.04) is significant; there are significant differences in the extent to which individuals experience change given their individual characteristics
- the level 2 area level variance of 0.014 (SE 0.006) is also significant; so there are significant differences across areas in the variation to which satisfaction with the area changes over time
- this translates as only 0.7 per cent of the variation: 99.3 per cent is explained by individual-level characteristics.

The second model for area level satisfaction **includes starting position** and indicates (Figure 2):

- the comparator is not significantly different from the average of all NDC areas: there is a significant area effect without starting position but not when it is included
- differences between NDCs is more noticeable
- Level 1 individual-level variance of 1.19 (SE 0.02) and level 2 area level variance of 0.029 (SE 0.008): 2.4 per cent of the effect can be attributed to area level differences and 97.6 per cent by individual-level factors.



Large triangle indicates comparator



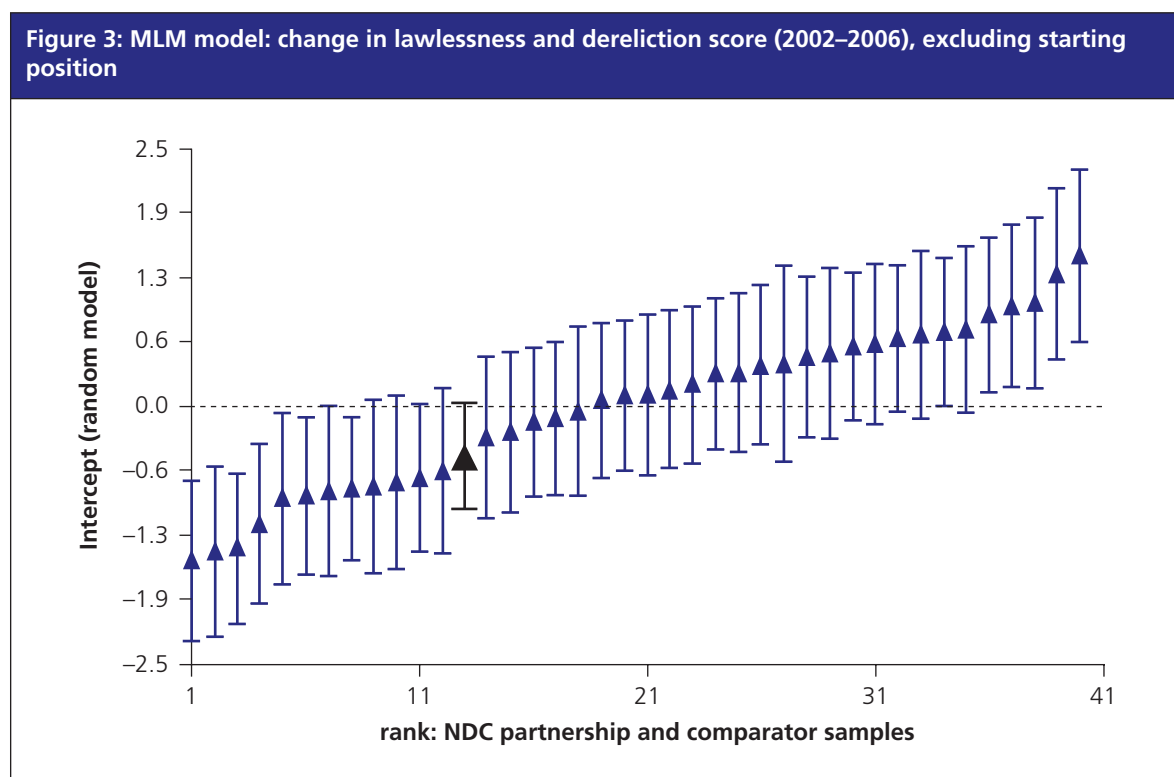
Large triangle indicates comparator

In relation to **lawlessness and dereliction** score from 2002–2006, the first model which **does not include starting position** (Figure 3) indicates:

- the comparator area overlaps the average (0.0) line and so is not significantly different from NDC areas
- the level 1 individual-level variance of 24.37 (SE 0.45) is significant: there are significant differences in the extent to which individuals experience change given their individual characteristics
- the level 2 area level variance of 0.72 (SE 0.20) is also significant: there are significant differences in variation across areas
- this translates as only 2.8 per cent of the variation being attributable to area level differences; 97.2 per cent can be explained by individual-level characteristics.

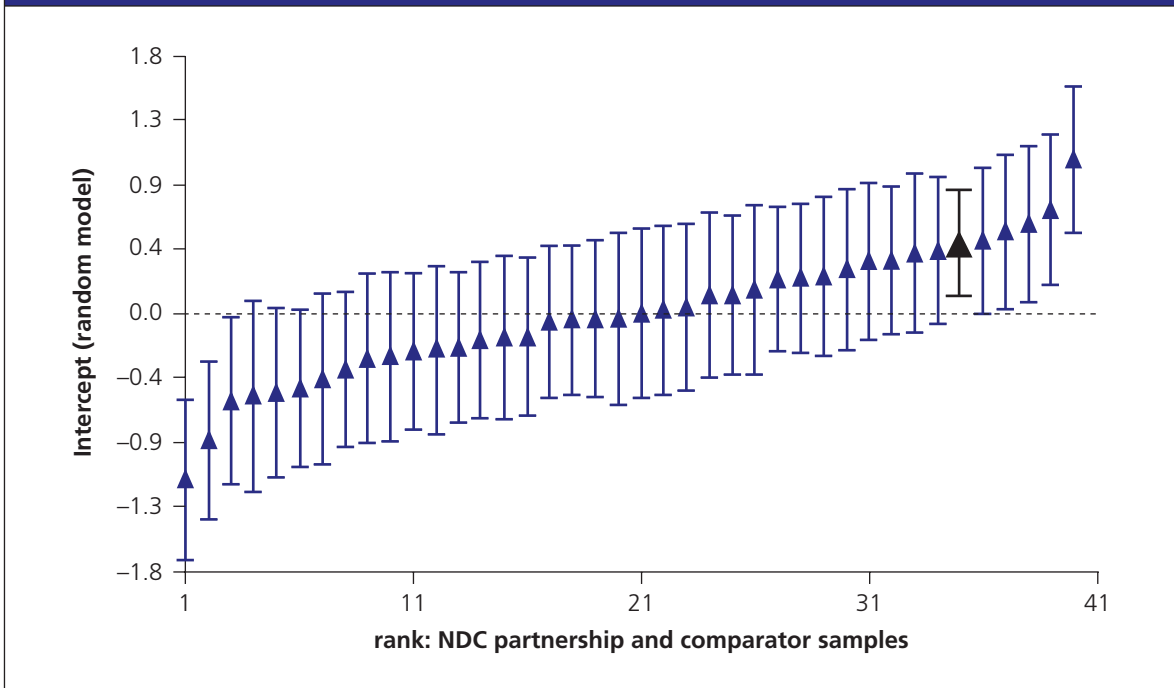
When **starting position is included** (Figure 4):

- comparator areas are actually significantly better than the NDC average
- level 1 individual-level variance of 14.04 (SE 0.26) and level 2 area level variance of 0.28 (SE 0.008): 2.0 per cent of the effect can be attributed to area level differences and 98 per cent by individual-level factors.



Large triangle indicates comparator

Figure 4: MLM model: change in lawlessness and dereliction score change (2002–2006), including starting position



Large triangle indicates comparator

Appendix 5: NDC panel – absolute position, 2006

Table A5.1: The 2002–2006 Panel: absolute position: gender 2006			
	2006 (%)		
	Male	Female	NDC
Education			
No qualifications (a)	36.4	35.9	36.1
Taken part in education or training in the past year (b)	14.7	25.3	21.2
Need to improve basic skills	23.3	28.1	26.3
Health			
No physical activity for at least 20 mins	14.5	8.9	11.1
Smoke	33.1	33.9	33.6
Health not good	23.8	24.8	24.4
Health worse than a year ago	25.4	24.4	24.8
Satisfied with doctor (c)	87.7	85.7	86.4
Crime			
Lawlessness and dereliction index, high score	12.2	14.8	13.8
Feel unsafe after dark	35.0	58.5	49.3
Fear of crime index, high score	11.6	25.0	19.7
Been a victim of at least one crime (f)	23.5	26.8	25.5
Housing and physical environment			
Satisfied with area	74.6	70.8	72.3
Trapped (g)	13.2	15.2	14.4
Want to move	32.5	38.0	35.9
Satisfied with accommodation	87.4	84.3	85.5
Think area has improved over last 2 years (d)	44.9	40.6	42.3
Problems with environment index, high score	11.5	14.0	13.0
Community			
Feel part of the community	45.8	47.1	46.6
Neighbours look out for each other	65.4	69.0	67.6
Quality of life good	80.9	79.8	80.3
Can influence decisions that affect local area	26.4	28.5	27.7
Worklessness and finance			
Receive benefits	45.2	55.3	51.3
Workless households (e)	34.5	38.4	37.0
In employment (a)	60.9	50.2	54.4
Income less than £200 per week	36.2	41.7	39.7

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All Male (2051) Female (3448), (a) Working age 2002 & 2006 Male (1337) Female (2270), (b) Working age & not in full time education 2002 & 2006 Male (1268) Female (2161), (c) Seen doctor in previous 12 months 2002 & 2006 Male (1358) Female (2636), (d) Lived in area two or more years 2002 & 2006 Male (1854) Female (3175), (e) Working age households 2002 & 2006 Male (1426) Female (2440)
 (f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.
 (g) Want to move but feel it is unlikely to happen.

Table A5.2: The 2002–2006 Panel: absolute position: age 2006					
	2006 (%)				
	16–24	25–49	50–59	60+	NDC
Education					
No qualifications (a)	12.7	31.2	52.1	55.0	36.1
Taken part in education or training in the past year (b)	19.8	24.3	17.1	5.8	21.2
Need to improve basic skills	42.0	34.8	25.6	12.9	26.3
Health					
No physical activity for at least 20 mins	5.3	6.3	10.0	18.9	11.1
Smoke	30.6	39.1	37.9	24.7	33.6
Health not good	10.6	16.9	30.0	33.5	24.4
Health worse than a year ago	12.8	17.5	28.4	34.4	24.8
Satisfied with doctor (c)	78.4	83.0	86.1	91.3	86.4
Crime					
Lawlessness and dereliction index, high score	24.8	18.0	13.0	6.9	13.8
Feel unsafe after dark	38.7	45.7	51.1	54.9	49.3
Fear of crime index, high score	16.6	23.5	20.1	15.2	19.7
Been a victim of at least one crime (f)	34.6	32.0	23.8	16.4	25.5
Housing and physical environment					
Satisfied with area	70.1	69.6	70.8	77.1	72.3
Trapped (g)	11.3	18.0	15.5	9.6	14.4
Want to move	57.3	46.4	34.4	19.2	35.9
Satisfied with accommodation	81.8	79.9	86.7	92.7	85.5
Think area has improved over last 2 years (d)	48.7	42.3	42.2	41.4	42.3
Problems with environment index, high score	12.9	15.8	13.2	9.4	13.0
Community					
Feel part of the community	32.2	46.8	45.2	49.5	46.6
Neighbours look out for each other	62.2	68.5	68.6	66.9	67.6
Quality of life good	83.4	79.4	77.3	82.4	80.3
Can influence decisions that affect local area	26.2	30.3	29.3	23.7	27.7
Worklessness and finance					
Receive benefits	33.0	53.6	49.3	52.6	51.3
Workless households (e)	30.9	35.6	38.6	44.2	37.0
In employment (a)	56.5	56.9	52.2	29.1	54.4
Income less than £200 per week	26.1	30.0	36.1	53.5	39.7

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All 16–24 (208) 25–49 (2347) 50–59 (879) 60+ (2065), (a) Working age 2002 & 2006 16–24 (208) 25–49 (2347) 50–59 (879) 60+ (176), (b) Working age & not in full time education 2002 & 2006 16–24 (119) 25–49 (2264) 50–59 (870) 60+ (176), (c) Seen doctor in previous 12 months 2002 & 2006 16–24 (129) 25–49 (1612) 50–59 (647) 60+ (1606), (d) Lived in area two or more years 2002 & 2006 16–24 (168) 25–49 (2046) 50–59 (830) 60+ (1985), (e) Working age households 2002 & 2006 16–24 (208) 25–49 (2347) 50–59 (879) 60+ (433) (f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment. (g) Want to move but feel it is unlikely to happen.

Table A5.3: The 2002–2006 Panel: absolute position: NDC and comparator areas 2006		
	2006 (%)	
	NDC	Comp
Education		
No qualifications (a)	36.1	33.8
Taken part in education or training in the past year (b)	21.2	24.2
Need to improve basic skills	26.3	22.8
Health		
No physical activity for at least 20 mins	11.1	12.2
Smoke	33.6	29.5
Health not good	24.4	23.5
Health worse than a year ago	24.8	24.4
Satisfied with doctor (c)	86.4	86.7
Crime		
Lawlessness and dereliction index, high score	13.8	5.0
Feel unsafe after dark	49.3	40.5
Fear of crime index, high score	19.7	15.3
Been a victim of at least one crime (f)	25.5	25.2
Housing and physical environment		
Satisfied with area	72.3	75.7
Trapped (g)	14.4	14.7
Want to move	35.9	33.5
Satisfied with accommodation	85.5	89.9
Think area has improved over last 2 years (d)	42.3	29.8
Problems with environment index, high score	13.0	7.3
Community		
Feel part of the community	46.6	51.3
Neighbours look out for each other	67.6	73.8
Quality of life good	80.3	84.3
Can influence decisions that affect local area	27.7	29.0
Worklessness and finance		
Receive benefits	51.3	46.5
Workless households (e)	37.0	28.5
In employment (a)	54.4	61.2
Income less than £200 per week	39.7	33.7

Source: Ipsos MORI Longitudinal panel (2002–04–06)

Base: All NDC (5499) Comp (458), (a) Working age 2002 & 2006 NDC (3607) Comp (279), (b) Working age & not in full time education 2002 & 2006 NDC (3429) Comp (258), (c) Seen doctor in previous 12 months 2002 & 2006 NDC (3994) Comp (328), (d) Lived in area two or more years 2002 & 2006 NDC (5029) Comp (417), (e) Working age households 2002 & 2006 NDC (3866) Comp (302)

(f) Experienced at least one incident of: burglary; theft from outside the home; theft from the person; assault; vandalism; being threatened; or racial harassment.

(g) Want to move but feel it is unlikely to happen.

Appendix 6: 'Beneficiary projects' by NDC Partnership

NDC	Project name	Category	Size at 2004	Size at 2006
Norwich	Family Matters	Education	Medium	Small
	Marlpit Communications Centre	Employment	Large	Medium
	The Garage	Education	Large	Large
	Community Wardens	Crime and community safety	Large	Large
Luton	Turning Corners	Employment	Small	Small
	Sports Co-ordinator	Health	Small	Small
	Business and Community Enterprise Development	Business support	Small	Small
Brighton	Community Safety Team	Crime and community safety	Large	Large
	Neighbourhood Wardens	Crime and community safety	Large	Medium
	Health 4 All Team	Health	Missing	Missing
	Bridge 2 Employment	Employment	Medium	Small
Southampton	Increased Police Presence	Crime and community safety	Medium	Medium
	Tidy Team	Environment	Large	Large
	Skatepark	Community development	Small	Small
Bristol	Locks and Bolts Project	Crime and community safety	Medium	Small
	The New Deal Shop	Community development	Small	Small
	East Bristol Advice Centre	Employment	Medium	Small
	The Adult Learning Project	Employment	Large	Large
Plymouth	Cumberland Block Stonework	Housing	Large	Large
	Improvement of CCTV in Devonport	Crime and community safety	Medium	Medium
	Homesafe Project	Crime and community safety	Small	Small
	Firework Circus Frenzy	Community development	Small	Small
Birmingham KN	The Kings Norton 3 Estates Environmental Task Force	Environment	Large	Medium
	The Workshop	Employment	Small	Small
	The Community Wardens	Crime and community safety	Small	Small
	The 3 Estates Community Forum	Community development	Large	Large

NDC	Project name	Category	Size at 2004	Size at 2006
Birmingham A	Safer streets in Aston	Crime and community safety	Large	Medium
	ICT (Information & Communications Technology) Project	Education	Large	Large
	Aston Family Learning Centre – APNA (Formerly Ronnie’s Roller Rink)	Health	Large	Large
	Cleaner Greener Aston	Environment	Medium	Medium
Coventry	Neighbourhood Warden Scheme	Crime and community safety	Medium	Large
	Community Resource Fund	Community development	Medium	Large
	Wood End Advice Centre	Community development	Small	Small
	Building of new schools	Education	Large	Large
Sandwell	High Quality Safe Environment	Crime and community safety	Large	Large
	Greets Green Neighbourhood Wardens Team	Crime and community safety	Small	Medium
	Estate Maintenance Officer	Housing	Small	Small
	Community Funds	Community development	Small	Small
Walsall	Neighbourhood Wardens Scheme	Crime and community safety	Medium	Medium
	Cyber Café	Education	Small	Small
	Blakenall One Stop Shop (BOSS)	Community development	Medium	Large
	Healthy Hearts	Health	Medium	Medium
Wolverhampton	WarmZone	Housing	Large	Large
	Phoenix Park – pathways (walking tracks) and lighting	Environment	Small	Small
	Duke Street Play Facilities	Community development	Small	Small
Derby	Burglary Reduction	Crime and community safety	Medium	Medium
	Revive	Health	Small	Medium
	NEAT	Environment	Medium	Medium
	Urban bus challenge	Community development	Medium	Medium
Leicester	Braunstone Working	Employment	Large	Large
	Six Streets Housing Project	Housing	Large	Large
	Acorn Fund	Community development	Medium	Small
	CCTV Project	Crime and community safety	Medium	Small

NDC	Project name	Category	Size at 2004	Size at 2006
Nottingham	Neighbourhood Wardens	Crime and community safety	Medium	Medium
	Safe as Houses	Crime and community safety	Medium	Medium
	Street Lighting	Crime and community safety	Large	Large
	NDC Beat Team	Crime and community safety	Medium	Medium
Bradford	@ WORK	Employment	Small	Small
	@ HOME IN BD5	Housing	Small	Small
	Bradford Trident Healthy Living Project	Health	Medium	Small
	Bradford Trident Neighbourhood Wardens	Crime and community safety	Small	Small
Doncaster	Police tutor unit	Crime and community safety	Large	Large
	Ways 2 Work job brokerage project	Employment	Medium	Medium
	Alley gating	Crime and community safety	Small	Small
	Resident support workers	Community development	Medium	Medium
Hull	The Village Centre	Community development	Large	Large
	Child Dynamix (childcare) project	Education	Small	Large
	Creating a Learning Community	Education	Large	Large
	Preston Road Women's Centre (WINNER)	Community development	Large	Large
Sheffield	Burngreave New Deal for Community Police Team	Crime and community safety	Medium	Medium
	Burngreave Community Learning Campaign	Education	Large	Large
	Jobnet	Employment	Small	Small
	Burngreave Messenger	Community development	Medium	Small
Knowsley	Neighbourhood Action Team	Environment	Large	Large
	Improvement to walls	Environment	Large	Large
	Street lighting	Environment	Medium	Medium
	Demolishing vacant properties	Environment	Small	Small
Liverpool	Streets Ahead	Employment	Small	Small
	Neighbourhood Wardens	Crime and community safety	Small	Medium
	Kensington Community Learning Centre	Education	Large	Large
	Alleygating project	Crime and community safety	Medium	Small

NDC	Project name	Category	Size at 2004	Size at 2006
Manchester	Alleygating project	Crime and community safety	Large	Medium
	East Manchester Neighbour Nuisance Team	Crime and community safety	Large	Medium
	Eastserve	Education	Large	Large
	East Manchester Neighbourhood Wardens	Crime and community safety	Large	Medium
Oldham	IT on the loose	Employment	Medium	Small
	Installation of Smartwater	Crime and community safety	Small	Small
	Sports Development/ Community Sports Development Officer	Community development	Small	Small
Rochdale	Community Transport	Community development	Small	Small
	CCTV	Crime and community safety	Medium	Small
	Additional Police Patrols	Crime and community safety	Medium	Small
	Heywood Handy Person	Crime and community safety	Small	Small
Salford	Burglary Reduction	Crime and community safety	Small	Small
	Cromwell Gardens	Environment	Missing	Missing
	Health and Well-Being Centre	Health	Small	Small
	Jobshop	Employment	Large	Large
Hartlepool	Belle Vue Community, Youth and Sports Centre	Community development	Large	Large
	Community Wardens	Crime and community safety	Medium	Large
	At Work	Employment	Medium	Large
	Target Hardening	Crime and community safety	Large	Medium
Middlesbrough	At WORK	Employment	Large	Large
	Street Wardens	Crime and community safety	Small	Medium
	Community Police Officer	Crime and community safety	Small	Small
	The YIP	Crime and community safety	Large	Medium
Newcastle	Neighbourhood Wardens (Crime & Community Safety)	Crime and community safety	Small	Medium
	ICT Strategy (Our Community)	Community development	Medium	Small
	Private Rented Project	Housing	Medium	Medium
	Early Years Strategy	Education	Small	Medium
Sunderland	Valley Road Community School	Education	Large	Large
	Hive	Education	Missing	Missing
	Community Police Team	Crime and community safety	Medium	Small
	Community Link Team	Community development	Medium	Medium

NDC	Project name	Category	Size at 2004	Size at 2006
Brent	ICT (Information and Communication Technology) in the Home	Education	Small	Small
	The Residents' Champions	Community development	Small	Small
	Neighbourhood and Security Wardens	Crime and community safety	Medium	Small
Hackney	The 394 Shoreditch Hoppa	Community development	Small	Small
	The SHOW/Pinnacle neighbourhood wardens	Crime and community safety	Large	Large
	InShoreditch	Community development	Missing	Missing
Haringey	Safe and Secure routes Lighting up Seven Sisters	Environment	Large	Medium
	St Ann's Library and Hall Refurbishment	Community development	Medium	Small
	Neighbourhood Wardens	Crime and community safety	Medium	Small
	The Laurels Healthy Living Centre	Health	Small	Medium
Islington	Estate security works	Crime and community safety	Medium	Medium
	Four additional GPs	Health	Large	Large
	Play area improvements	Community development	Small	Small
	The Goswell Centre	Education	Small	Small
Lambeth	The Warden Scheme	Crime and community safety	Medium	Large
	Youth Programme	Crime and community safety	Medium	Medium
	Community Education Zone	Education	Medium	Medium
Lewisham	Area Lighting Programme	Crime and community safety	Large	Large
	Neighbourhood Street Wardens	Crime and community safety	Medium	Large
	Community School Support Programme	Education	Large	Medium
	Community Chest	Community development	Small	Small
Newham	Community policing team	Crime and community safety	Large	Large
	Food co-ops	Health	Small	Large
	ELITE	Employment	Missing	Missing
	Detached youth team	Education	Small	Small
Southwark	Aylesbury Learning Centre	Education	Small	Small
	Community Wardens	Crime and community safety	Small	Small
	Freestyle	Employment	Missing	Missing
	Healthy Living Network	Health	Medium	Medium

NDC	Project name	Category	Size at 2004	Size at 2006
Tower Hamlets	Redevelopment of the Ocean Estate	Environment	Large	Large
	Neighbourhood Wardens	Crime and community safety	Large	Large
	Advice, Training and Job Brokerage	Employment	Large	Medium
	The Ocean Maths Project	Education	Large	Large

Note: Shaded rows indicate missing size

Appendix 7: Worsened score – beneficiaries/non-beneficiaries; projects by theme (2002–2004)

	Percentage with worsened score 2002–2004		
	Beneficiaries	Non-beneficiaries	Difference
Crime projects (a)			
Fear of crime score	31	35	–4
Lawlessness and dereliction score	31	36	–4
Number of crimes experienced	17	17	0
Satisfaction with area	23	25	–2
Extent NDC improved area (b)	18	22	–4
Environment projects (c)			
Problems with the environment score	32	38	–6
Lawlessness and dereliction score	34	37	–3
Satisfaction with area	22	25	–4
Extent NDC improved area (d)	15	24	–9
Community projects (e)			
Feeling part of community	25	26	–1
Satisfaction with area	24	24	–1
Extent NDC improved area (f)	18	20	–2
Housing projects (g)			
Satisfaction with accommodation	24	21	3
Satisfaction with repair of home	23	24	–2
Satisfaction with area	24	26	–2
Extent NDC improved area (h)	10	19	–9
Health projects (i)			
SF36 mental health score	44	41	3
Ease of seeing GP (j)	26	25	0
Trust in local health services	17	23	–6
Satisfaction with area	24	25	–1
Extent NDC improved area (k)	14	21	–7
Education projects (l)			
Trust in local schools	19	25	–6
Satisfaction with area	29	26	3
Extent NDC improved area (m)	21	25	–4
Employment projects (n)			
Satisfaction with area	26	24	2
Extent NDC improved area (o)	16	22	–6

Source: Ipsos MORI 2002–2004

Base: (a) all in NDCs putting forward crime projects – beneficiaries (2434), non-beneficiaries (6811); (b) all heard of NDC, in NDCs putting forward crime projects – beneficiaries (1782), non-beneficiaries (4222); (c) all in NDCs putting forward environment projects – beneficiaries (620), non-beneficiaries (1992); (d) all heard of NDC, in NDCs putting forward environment projects – beneficiaries (429), non-beneficiaries (1170); (e) all in NDCs putting forward community projects – beneficiaries (951), non-beneficiaries (5419); (f) all heard of NDC, in NDCs putting

forward community projects – beneficiaries (697), non-beneficiaries (3593); (g) all in NDCs putting forward housing projects – beneficiaries (69), non-beneficiaries (1606); (h) all heard of NDC, in NDCs putting forward housing projects – beneficiaries (64), non-beneficiaries (1161); (i) all in NDCs putting forward health projects – beneficiaries (277), non-beneficiaries (2682); (j) all seen GP in last year, in NDCs putting forward health projects – beneficiaries (205), non-beneficiaries (1933); (k) all heard of NDC, in NDCs putting forward health projects – beneficiaries (181), non-beneficiaries (1616); (l) all in NDCs putting forward education projects – beneficiaries (410), non-beneficiaries (4197); (m) all heard of NDC, in NDCs putting forward education projects – beneficiaries (277), non-beneficiaries (2431); (n) all in NDCs putting forward employment projects – beneficiaries (284), non-beneficiaries (4456); (o) all heard of NDC, in NDCs putting forward employment projects – beneficiaries (240), non-beneficiaries (3084)

Note: **bold** = difference significant at 95 per cent level, calculated using effective base sizes (80 per cent of actual base) as advised by Ipsos MORI

NVQ qualifications not included as ‘worsening’ cannot logically occur

	Percentage making negative transitions 2002–2004		
	Beneficiaries	Non-beneficiaries	Difference
Community projects			
Influencing local decisions (can to can’t) (a)	35	50	-15
Involvement in local organisations on a voluntary basis (involved to not involved) (b)	29	49	-20
Employment projects			
Employment (employed to not employed) (c)	19	11	8

Source: Ipsos MORI 2002–2004

Base: (a) all who don’t feel they can influence decisions in 2002, in NDCs putting forward community projects – beneficiaries (668), non-beneficiaries (4168); (b) all not involved in local organisations in 2002, in NDCs putting forward community projects – beneficiaries (755), non-beneficiaries (4748); (c) all working age in both periods and not employed in 2002, in NDCs putting forward employment projects – beneficiaries (141), non-beneficiaries (1530)

Note: **bold** = difference significant at 95 per cent level, calculated using effective base sizes (80 per cent of actual base) as advised by Ipsos MORI

Rows may not sum due to rounding

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