

RESEARCH REPORTS

Participants at the workshop were asked to report briefly on their current research. Their summaries follow.

GRANT ANDREWS NEW ZEALAND ENGINEERS UNION

(1) FUTURE OPTIONS FOR WAGE FIXING

Aims: To identify options for future wage bargaining systems for policy information, having regard to existing New Zealand Engineering Union policy, economic, political and industrial situation, possible future objectives in bargaining.

Data sources: Generally based around exposition of ideas and concepts, with limited use of internal statistics re awards and agreements.

Conclusions: Still awaiting policy decisions.

(2) IMPACT OF WAGE FREEZE ON NEW ZEALAND ENGINEERING UNION MEMBERS

Aims: Ascertain effects on purchasing power of New Zealand Engineering Union members' wages, particularly over the period of the freeze, and publicise them.

Data sources: Department of Statistics figures on wage movements, inflation and real disposable incomes; Department of Labour quarterly employment figures; New Zealand Engineering Union wage documents and surveys; Inland Revenue Department tax tables.

Conclusions: Substantial losses of purchasing power, particularly in respect of lowest paid and 2-income families.

(3) IMPACT OF CHANGES IN NEW ZEALAND INDUSTRIES ON WORKERS IN THOSE INDUSTRIES

(A) C.E.R.

Objectives: Identify industries where C.E.R. might have a significant impact, positive and negative, in terms of trade production and investment, with a view to appropriate action.

Data sources: Official trade statistics; Australia Department of Trade publications; discussions with departmental officers, industry groups etc; feedback from industrial staff.

Conclusions: Main impact thus far in reallocation of investment to New Zealand from Australia, rather than loss of production to imports or gains through exports; no clear indications on employment or wages. Future development may depend on factors directly related to local wages and conditions.

(B) MOTOR VEHICLE INDUSTRY (INDUSTRIES DEVELOPMENT COMMISSION STUDY)

Aims: Preparing basis for lobbying to Government and industry on protective regime to preserve assembly and component manufacturing industries.

Data used: Department of Statistics figures on vehicle registrations; Department of Labour figures on industry employment; published company accounts; Industries Development Commission report itself; survey of industry workforce conducted by the industry unions.

Conclusions: Substantial amount of protection including quantitative controls still necessary. Still awaiting Government decision.

(C) CEMENT INDUSTRY (Current rationalisation proposals)

Aims: Identify alternatives to restructuring proposals of cement companies which could lead to loss of half the jobs in the industry.

Data used: Published company accounts and other industry sourced information; information from industry unions.

Conclusions: None as yet.

(4) COMPUTER SYSTEMS

Ongoing development of New Zealand Engineering Union computer system, including possible information system for awards and agreements.

Aims: Easy access to and manipulation of key rates and conditions in New Zealand Engineering Union wage documents.

Data sources: Actual documents - legal status, workers covered, wages and conditions etc.

Conclusions: None - still in planning stage.

(5) SURVEYS OF NEW ZEALAND INDUSTRIES AND WORKFORCES FOR INTERNATIONAL AFFILIATES

Aims: Supply of information on particular topics within New Zealand metal industry e.g. steel industry wages and industrial situation, female workers in manufacturing, purchasing power of metal industry workers.

Data sources: Quarterly Employment Survey information (particularly full survey); general economic statistical sources; feedback from industrial staff.

Conclusions: As varied as the questions!

AUCKLAND REGIONAL AUTHORITY
REPORTED BY JIM LENNON

The Auckland Regional Authority's (A.R.A.'s) involvement in labour and employment research is relatively recent and has arisen from the new requirement to consider economic development issues in regional planning schemes following the passage of the 1977 Town and Country Planning Act, and from increasing concern with the level of unemployment in the Auckland region.

The A.R.A. established an employment promotion committee in August 1980 which was concerned with promoting the use of Department of Labour job creation schemes and promoting employment generally in the region. The committee was abolished by the newly elected Authority in November 1983.

Current research is taking place in the following areas:

(1) Setting up of a regional and sub-regional data base on employment and unemployment, from Department of Statistics and Department of Labour sources. Monthly unemployment figures have been seasonally adjusted.

(2) Results of the 1982 Census of Manufacturing are currently being analysed and a discussion paper on manufacturing trends in the region is being prepared. This will also consider the implications of national economic policy on the future of Auckland, e.g. C.E.R., the removal of non-tariff protection, industry reviews, and manufacturing specialisation.

(3) Changes in the occupational structure of the regional labour force and the future training requirements for technical institutes in Auckland. This is part of a study which involves a comprehensive review of continuing education in the Auckland region. Labour force projections by age, sex and ethnic group are currently being undertaken under conservative net migration and participation rate assumptions. In future it is hoped that projections under a wide range of assumptions will be possible.

(4) Part of an O.E.C.D. project on urban economic development involves a review of economic trends and policies in the Auckland region. The study will include a review of the effectiveness of local authority policies in the employment area and, in particular, their experience in the use of Department of Labour job creation schemes.

JONATHAN BOSTON
 INSTITUTE OF POLICY STUDIES
 VICTORIA UNIVERSITY OF WELLINGTON

PROJECT ON INFLATION AND INCOMES POLICY IN NEW ZEALAND 1968-1983

Purpose: The main aim of the study is to describe, analyse and critique the incomes policies of New Zealand Governments since the breakdown of the wage-fixing system based upon the Arbitration Court in the late 1960s. As such the study focuses upon the following matters:

- (1) The structure of pay fixing and the changing pattern of industrial relations.
- (2) The macro-economic debate surrounding the causes and consequences of inflation.
- (3) The arguments for and against incomes policies.
- (4) The shape, character and form of State intervention in the process of pay determination in New Zealand since 1970.
- (5) The political, industrial and economic consequences of these interventions.
- (6) The experience of incomes policies in New Zealand in comparison with international trends and developments.
- (7) The various pay fixing options for the future - statutory controls, selective intervention, social contracts, tax-based incomes policies (T.I.P.), arbitral systems (Meade), market anti-inflations plans (M.A.P.), free collective bargaining, and so forth.

Length: The study will consist of approximately 11 chapters and will run to about 100,000 words.

Sources: The principal source for this project will be the unpublished Treasury report on incomes policy which I completed in 1980. In preparing this original study, and also subsequently, I have been given access to all the relevant official papers. In addition, I have interviewed a large number of those involved in the incomes policy debate - ministers, public servants, employers, trade unionists and academics.

Completion Date: If all goes well, the book should be published late in 1984. The main problem at the moment relates to the use of official information and the extent to which I shall be free to criticise the actions of the Government.

R.D. BOWIE
NEW ZEALAND INSTITUTE OF ECONOMIC RESEARCH

The notion of the "peripheral" labour force is that there is considerable flux in the labour market, with people in the labour force at one time in the year and out at another. Peripherality, with respect to New Zealand, has been explored in "The Peripheral Labour Force", published in Easton (ed.) *Studies in the Labour Market* (see bibliography). This study attempts to measure the size of this flux, and estimates that in 1975/76 the "peripheral" labour force was over half as large as the "permanent" labour force. Moreover, peripherality is a growing phenomenon, of which the most obvious indicator is the growth of part-time work. Although the data base is deficient, an attempt has been made to identify the main areas of peripherality, by occupation and by social group. It seems clear that women, persons sixty years of age and over, beneficiaries, and students are the main sources of peripheral workers, and low skilled occupations are their main jobs.

Further information on peripherality and other aspects of the labour market in the Wellington region is hoped to be obtained through a regional labour force (household) survey, with support from the Wellington Regional Council. The aim of this survey is to obtain information from a sample of the (Wellington region) population concerning aspects of individuals' past, present and future employment - thus providing the raw data necessary for an analysis of labour market activity in the Wellington region.

Currently a questionnaire for the survey is being designed.

PETER BROSNAN
INDUSTRIAL RELATIONS CENTRE
VICTORIA UNIVERSITY OF WELLINGTON

(1) INVALIDS AS HIDDEN UNEMPLOYED

This study is motivated by the observation of lowered participation rates by prime age males at recent censuses and the decline in the rate of growth of female participation rates between 1976 and 1981. Given the increase in unemployment rates, the lowered participation rates are consistent with the discouraged worker effect. But how do these discouraged workers support themselves? One hypothesis is that they become invalids or sickness beneficiaries. Given a slack labour market, we might find that doctors were more inclined to certify unemployed persons as sick or invalided thus permitting them to receive social welfare without having to meet a futile job search requirement. We might also expect that the same doctors

would be unlikely to take such people off the invalids or sickness benefit until more work was available.

An inspection of the data showed that between 1960 and 1974 the number of sickness beneficiaries climbed from around 4000 to 7000. Since then it has been steady around that figure. Thus the hypothesis that significant numbers of discouraged workers are on the sickness benefit can be rejected. Between 1960 and 1974, the number of invalids beneficiaries was stable around 8000. Since then it has climbed to reach 19000. The correlation between the growth in numbers on the unemployment benefit and on the invalids benefit is 0.85.

Current work is directed at breaking down invalid registrations by age, sex, type of invalidity and reasons for cessation of benefit.

(2) STATE SECTOR WAGE FIXING IN NEW ZEALAND

Despite their similarity in many other respects (population, industrial structure, language and culture), New Zealand and the Republic of Ireland have remarkably different State sector wage fixing. The aim of this study is to (a) explain why and (b) develop a more general theory of state sector wage fixing.

The variables which appear to explain the major differences are:

- (a) The history of unemployment (labour market tightness or slack)
- (b) The structure of unionism
- (c) Private sector wage fixing arrangements
- (d) The political parties and their relation to trade unionism.

(3) INCOME, OCCUPATION AND ETHNIC ORIGIN

I am examining census data to investigate the relativity between ethnic origin and income and occupation. This work is being shared with Craig Hill (see separate report below) and a number of papers have been published (see periodicals section of bibliography).

PAUL BROWN
DEPARTMENT OF STATISTICS

NON-MARKET WORK AND TIME-USE STATISTICS

In New Zealand, as in most other industrialised countries, the predominant concept of work relates to activity which occurs within the formal economy. Labour force definitions generally encompass only those persons who receive monetary remuneration for their work. An exception to this in New Zealand and some other countries is persons who assist in a family enterprise and who do not receive direct

monetary remuneration, but whose work nevertheless occurs within the formal economy. Those persons not employed full-time in the formal economy, but who are engaged in voluntary and unpaid work are, within the purview of official statistics, relegated to a residual group of the working age population which is deemed to be not engaged in economic activity, and by definition not working (e.g. : housewives, retired persons, students, etc.).

In New Zealand there are no current official statistics available about the size, structure and characteristics of the population engaged in voluntary and unpaid work. However, to the extent that this group seeks wider recognition of the status of its work and its size changes in relation to the officially defined labour force, then the relevance and usefulness of the current labour force concepts and definitions are likely to be questioned increasingly.

An important limitation of labour force statistics based on the formal economy is their lack of comparability over time. This results from the transfer of positions between the formal and informal economies. The effect is to artificially inflate or deflate the size of the labour force, and to distort growth rates. An obvious example is the movement of women into paid positions. This has meant that some types of work traditionally undertaken by women on a voluntary and unpaid basis are now being undertaken by salaried employees (e.g. : in social service agencies). This suggests that levels of labour force participation may not have changed as dramatically as we have been led to believe from official sources. An unknown portion of the change may have been merely the result of movement within a conceptually wider labour force. Broadening the definition of the labour force to include persons working in both the formal and informal economies would result in an improved measure of temporal changes in the workforce.

To date, the Social Statistics Development Section of the Statistics Department has made some preliminary investigations of the suitability of time-use survey methodology for measuring non-market work. In the near future we hope to proceed with the testing of time-use survey instruments as well as investigating further the possibility of developing a broader classification of work, incorporating both market and non-market activity.

CHARLES CROTHERS
DEPARTMENT OF SOCIOLOGY
UNIVERSITY OF AUCKLAND

My main interest in labour force research lies in the relationship between the economy and other areas of society. This has various aspects. One line of

influence lies in the way changes in the economy shape changes in different industries, which then are translated (through the industry-occupation matrix) into changes in occupations, which form a major base for the development of social class patterns. Another important line of influence involves the way the labour force is organised in terms of types of enterprise and roles within enterprises (e.g. "key roles" such as employers, entrepreneurs, managers) and how this shapes wider social experiences and ideologies. Another relationship is the way the public seeks to understand, evaluate and shape national economic performance as they perceive and experience it. Related to this is the link between living standards of households and their abilities to secure resources within the economic sector. I am exploring this through a pilot study under a grant from the Social Sciences Research Fund Committee. This study includes measures of short-term labour force mobility. Also, I have some involvement in studies of social consequences of plant closures, and the role of entrepreneurs in generating employment growth. My interest lies in trying to specify and test, for New Zealand, a variety of significant "sociological" theories such as "post-industrial society", "dual economy", etc.

Conceptualising these relationships between economy and social class and reviewing relevant literature is an important preparatory task. At the empirical level, I have been putting much effort into assembling appropriate computerised data-sets:

- labour force characteristics by industry, 1971-1981;
- labour force characteristics by occupations, 1971-1981
(occupation level - attempting to push back to 1956 or earlier);
- detailed labour force characteristics by occupations 1971-1981
(minor group level);
- small area workforce and resident labour force characteristics;
- labour force characteristics of selected ethnic groups, 1976-1981;
- industry/occupation matrices;
- industry characteristic (e.g. strikes, accidents, change, etc.);
- poll and socio-economic indicator time-series.

These data-sets are organised to facilitate quick information retrieval and so relevant data can be supplied on request.

HARVEY FRANKLIN
DEPARTMENT OF GEOGRAPHY
VICTORIA UNIVERSITY OF WELLINGTON

Because of their interest in other countries, geographers have been aware of different sorts of labour markets for some time.

My first acquaintance with the topic came through my work in Southern Italy in the early 1960s which familiarized me with Vera Lutz's work on wages dualism and the precarious sector - as it was then called. Field work has drawn the attention of the geographers at Victoria to the varied characteristics of regional labour markets. My immediate interest lies with the restructuring issue, the influence extended by changing consumer preferences, changing technologies, import penetration and export promotion and my particular concern at the moment is the European and North American literature on the subject. I have developed the restructuring argument at some length in my forthcoming book, *Cul de Sac - New Zealand without a priority*.

ARTHUR GRIMES
RESERVE BANK OF NEW ZEALAND

The Labour Department's half-yearly and quarterly employment surveys have been used to derive quarterly labour market data suitable for the Reserve Bank's econometric work. It was desired to have the series broken down into the private, Government market, and Government non-market sectors so as to be consistent with Standard National Accounts sectors. While such a strict breakdown is not possible using the Labour Department data, it has been proxied by including, under private, the Labour Department's private plus local authorities' industries 1-8 (non-services) data; under Government non-market, the Labour Department's local authority and Government industry 9 (services) data; and under Government market the Labour Department's Government industries 1-8 plus Government corporation data.

Each of the following series have been compiled for both males and females for each sector:

- (a) full-time employees;
- (b) part-time employees;
- (c) working proprietors (applicably only to the private sector);
- (d) total ordinary-time hours;
- (e) total overtime hours;
- (f) total ordinary-time earnings;
- (g) total overtime earnings.

The data since April 1961 have been compiled; although, prior to October 1983, only the first 3 of these categories were available separately for males and females. The hours and earnings data have been obtained as total so that individual researchers can manipulate the data to derive their desired series. For instance, given the data for total hours worked, the number of full-time employees and the number of part-time employees, the user can derive a series for hours worked per employee

either by dividing hours worked by all employees or by full-time plus half part-time employees depending on the purpose for which the data is required.

At this stage, all the necessary data has been collected but the pre-1980 data has yet to be interpolated to a quarterly basis consistent with the present quarterly survey. It is intended that the method of cubic splines be used for interpolation, and once this process is complete, the data will be freely available for use by interested users.

JOHN HICKS
DEPARTMENT OF ECONOMICS
MASSEY UNIVERSITY

Aim: To test the relevance of the search theoretic hypothesis as an explanation of New Zealand's recent unemployment experience.

Data: Published and unpublished data from the Departments of Statistics, Labour, and Social Welfare.

Methodology: A simple diagramatic model of search theory was constructed and a number of its predictions tested utilizing New Zealand data. Hypotheses tested included:

- (a) That the number of discouraged workers is cyclically sensitive.
- (b) Unemployment is typically experienced by individuals in one-off spells of short duration.
- (c) That demand-deficient unemployment is either non-existent or unimportant.
- (d) There has been a structural shift in the relationship between unemployment and vacancies.
- (e) That increases in unemployment benefit payments encourage individuals either to become unemployed or extend their period of unemployment.

Main Conclusions: Although evidence of search in the labour market was found, it was not considered to be of importance in explaining either the level or the rise in the level of New Zealand's unemployment. This conclusion is based on the following results: First, a classification of unemployment by unemployment types showed that not only was demand-deficient unemployment important but its importance had clearly increased over time. Second, although a high proportion of completed spells of unemployment were of short to medium duration, this understated the importance of long spells in determining the unemployment rate. Unfortunately no examination could be made of multiple spells. Third, although there was shown to be an outward

movement of the unemployment-vacancy relationship in the late 1970s, this was demonstrated to be entirely due to data problems with no *real* shift being evident. Finally, contrary to expectation, a statistically significant *negative* relationship was found to exist between unemployment rates and unemployment benefit levels.

The existence of search as a phenomenon operating in the labour force was supported by the finding that the number of discouraged workers (amongst women) was cyclically sensitive and the positive correlation between unemployment duration and unemployment benefits.

CRAIG HILL
INDUSTRIAL RELATIONS CENTRE
VICTORIA UNIVERSITY OF WELLINGTON

In the area of labour and employment my research has concentrated in 2 principal areas.

(1) DISCRIMINATION IN THE LABOUR FORCE

Along with my colleague, Peter Brosnan, I have been conducting research into discrimination in the labour force. Within this area we have concentrated on discrimination between Maoris and non-Maoris focusing on the income differentials. Building on a number of previous papers by Brosnan, we recently published in the *Journal of industrial relations* (see bibliography) an article focusing on inter-industry differentials. This study found that occupational segregation of the Maori labour force accounted for much of the Maori-non-Maori income differential. However, when controlling for industry we found that ethnic origin accounted for a significant proportion.

(2) INCOME AND OCCUPATIONAL SEGREGATION

Two papers are about to be published in this area, by Peter Brosnan and myself. The first paper will appear in *New Zealand economic papers* (see bibliography) and looks at the relationship between income, occupation, and ethnic origin in New Zealand. The paper then compares the median incomes of Maoris and non-Maoris in 20 occupations where Maori employment is highest. The second paper to be published in *New Zealand population review* (see bibliography) looks at the occupational distribution of New Zealand's 6 largest ethnic groups. Census data is reclassified into occupational groups and then the distribution of the ethnic groups in these occupational groups is compared. Building on this paper, we are currently researching the occupational distribution of these ethnic groups from 1951-1981 and then

tying that together with income levels for these groups over the same period.

PRUE HYMAN
DEPARTMENT OF ECONOMICS
VICTORIA UNIVERSITY OF WELLINGTON

General research interest: Women's activities in the paid and unpaid labour force. In the paid labour force particularly participation rates, occupational distributions, description and analysis of male/female vertical and horizontal occupational segregation and earnings differences.

Previous work is on labour force participation and earnings differences. Main plan for the fairly near future is a book surveying theory, the limited New Zealand data and some overseas comparisons in this general area - aimed at a reasonably wide rather than specialist audience.

Particular interest: Nursing as an occupation. Educational preparation, supply, demand and wage levels, professional organisations and trade unionisation in the United States, United Kingdom and New Zealand. Currently looking at the switch from hospital to technical institute responsibility for the education of registered nurses - the aims and reservations of various groups and their relationship to economic and social factors and pressure group interests.

DEPARTMENT OF LABOUR
EMPLOYMENT POLICY DIVISION
REPORTED BY DAVID IMRAY

The Employment Policy Division of the Department of Labour exists to advise on policy. It is *not* a research organisation.

However in the process of policy development the Division attempts to take note of relevant research undertaken elsewhere and may initiate smaller scale investigations of its own.

This note outlines some of the work currently underway or recently completed, either in the Employment Policy Division or contracted by that Division to outside agencies. It does *not* cover projects undertaken or sponsored by any other Division of the Department of Labour (e.g. Training Policy Division).

(1) REVIEW OF PRIVATE SECTOR EMPLOYMENT SCHEMES

This review was based on personal interviews with a sample of employers who had used the Private Sector Employment Incentive Scheme, the Additional Jobs Programme or the Farm Employment Scheme. The sample was stratified regionally and by use of the 2 options of the scheme, the suspensory loan option and the wage subsidy option.

The review addressed 4 broad areas, namely:

- (a) whether jobs which had been subsidised would have been created without the subsidy;
- (b) whether the existence of the subsidy had the effect of bringing forward employers' recruitment of staff;
- (c) whether the subsidies influenced employers' choice of employee;
- (d) the post-subsidy experience of employees; employers' perceptions of the relative merits of the wage subsidy option and the suspensory loan option; and possible elasticities of response to changes in subsidy levels.

An internal working paper reporting on this review can be made available from the Employment Policy Division of the Department.

(2) STUDY OF THE LONG-TERM UNEMPLOYED

This study was aimed at establishing:

- (a) who are the long duration unemployed, what are the characteristics in terms of education and employment;
- (b) any identifiable groups most at risk of long duration unemployment;
- (c) at what point in a spell of unemployment could assistance or intervention be most effective;
- (d) what policy responses and specific assistance would be appropriate for the target group of long-term unemployed.

The study was taken in 3 tiers:

- (a) Examination of a 5 percent sample of the total register of unemployed persons in 26 selected offices. The purpose of this phase was to undertake statistical analysis of the characteristics of the unemployed and details of registrants leaving the register during the study period which lasted over a period of four weeks ending 16 December 1983.
- (b) Case study assessment - this phase involved an assessment of the full sample of individual cases drawn in Stage (a). Employment officers and vocational guidance counsellors were then asked to assess the major factors influencing unemployment as far as each particular individual was concerned, using both personal knowledge of the job seekers and the data available on the forms.

- (c) Structured interviews of long-term unemployed - this stage involved interviewing a 20 percent sample of individuals falling in the long-term unemployed category from the group drawn in Stage (a). The interviews were undertaken during January 1984.

This study is still being finalised and is not yet available from the Department.

(3) EXPERIENCE OF WORKERS EMPLOYED UNDER P.E.P.

This is a longitudinal study of persons referred to the Project Employment Programme (P.E.P.) with the objective of learning more about the experience of people during P.E.P. employment and, particularly, their employment experience following a P.E.P. job.

The first round of interviews was completed in mid-November 1983 and covered all those placed on P.E.P. schemes from mid-September to the end of October 1983 in the Wellington and Porirua areas of the Department of Labour.

The interviews are being staged as follows:

Round 1 : just after placement to P.E.P. employment;

Round 2 : immediately on leaving P.E.P. employment;

Round 3 : three months after leaving P.E.P. employment.

Round 3 interviews are still underway.

(4) NON-WAGE LABOUR COSTS IN NEW ZEALAND

This project was contracted to the New Zealand Institute of Economic Research. The purpose of the study was to review the theoretical literature on non-wage labour costs, explore data sources in New Zealand and attempt to generate New Zealand estimates which could be used to make international comparisons of non-wage labour costs.

This was an initial, baseline study to determine whether and in what directions future research might be appropriate.

The New Zealand Institute of Economic Research has prepared a discussion draft.

(5) REVIEW OF THE SPECIAL EMPLOYMENT ASSISTANCE FOR DISPLACED TYRE INDUSTRY WORKERS

Following talks with the Government about the Industries Development Commission's tyre industry development proposals it was announced in March 1983 that the Reidrubber Tyre Plant at Penrose was to close, affecting the jobs of about 440 people. The Government provided some finance for the takeover of the Penrose plant by the other tyre manufacturer, Dunlop, and the plant finally closed on 17 June 1983. The 413 people still working at the plant were made redundant from that date.

In addition to providing some finance for the takeover of Reidrubber by Dunlop, the Government approved a special package of adjustment assistance for the displaced

workers.

The objectives of the review were to:

- (a) record the take-up of employment assistance measures made available to employees becoming redundant at the Penrose plant;
- (b) investigate the labour market experience of the former Reidrubber employees;
- (d) determine the reasons why the displaced workers did (or did not) avail themselves of the special assistance offered; and
- (e) determine whether (and by how much) the special assistance measures contributed to the more rapid and/or more productive re-employment of the workers than might have been the case if the measures had not been available.

Clearly the final objective is an ambitious one.

The review was undertaken in 2 stages:

- (a) a search of the Department of Labour's Auckland registration files; and
- (b) interviews with a sample of 50 displaced workers to ascertain the reasons for their particular labour market behaviour and experience.

The file search was conducted from 24 October to 5 November 1983 while the personal interviews were carried out during the period 21 November to 2 December 1983.

The findings of this review are still being analysed.

NANCY MCBETH
DEPARTMENT OF STATISTICS

Aims: For the last 12 months I have been involved in analysing the socio-demographic characteristics of 2 groups within the labour force - the unemployed and the part-time workers. The results of this analysis will be published as part of the 1983 Census General Report. 81

Data: 1976 and 1981 Census data, utilising 10 percent sample files available within the Department.

MAIN FINDINGS

(a) Unemployment - Using the multi-variate techniques of log-linear and path analysis, it was found that, even when age, sex, marital status, education and region were controlled for, there was still an important relationship between ethnicity and unemployment. The other variables were of varying importance, depending

on whether one examined the 15-24 year old labour force, or the 25-64 year olds. Among 15-24 year olds, ethnicity, age, education, marital status, region and sex were the most important socio-demographic factors. Among 25-64 year olds, marital status was the most important, followed by ethnicity, age, education and region. When all these other factors are controlled for, women in this age group were no more likely to be unemployed than men.

(b) Part-Time Workers - For all people not in the full-time labour force, part-time work became more important during the 1970s. This was particularly true for women engaged in household duties - the traditional "source" of part-time workers. However, the Census shows this traditional source recorded a decrease in numbers over 1976-81 as women move into the full-time labour force. To this extent it is possible to trace out a job cycle for married women - related not surprisingly to the age of the youngest child. Married women in their thirties, and with a youngest child under 5 were the most likely to work part-time.

An additional trend observed was the movement from full-time to part-time work for a number of professional and technical workers.

FUTURE RESEARCH

A study examining the family characteristics of unemployed people, following on from the 1981 Census General Report is planned for later this year.

JOHN MARTIN
MINISTRY OF WORKS AND DEVELOPMENT

COMPLETED

Labour and Kiwifruit (1983) Report to D.S.I.R. under contract (see bibliography).

Aims: To establish the extent and nature of increasing demand for labour in Bay of Plenty kiwifruit orchards. To assess the characteristics of kiwifruit seasonal workers. Some social and economic implications of the expansion of the kiwifruit industry.

Methods: Growers' survey, worker interviews, key informant interviews, census data, Department of Labour data.

Conclusions: Demand for labour will increase rapidly in this decade. By the mid-1980s local sources of labour are likely to be exhausted. The present workforce (largely female and local) will increasingly be supplanted by other groups migrating temporarily into the area.

CURRENT RESEARCH

(1) KIWIFRUIT SEASONAL MIGRANT WORKFORCE

Aim: To assess the characteristics of this workforce and its needs so that planning can take place for a time when the migrant sector of the kiwifruit harvesting is crucial.

Methods: Survey of migrant workers, key informant interviews.

Present Situation: Construction of draft questionnaire, pilot survey in May 1984.

(2) LABOUR AND HORTICULTURE IN REGIONS OF NEW ZEALAND

Aim: To produce estimates of demand for labour in horticulture by region, from official data sources.

Methods: Use of Agricultural Census, Ministry of Agriculture and Fisheries regional kiwifruit estimates.

Present Situation: Preparation of draft report for Northland, preliminary data gathering for other regions.

(3) PALMERSTON NORTH HOUSEHOLD LABOUR FORCE SURVEY

Aim: To reconstitute the data analysed in Shipley (1982) to enable analysis by household and census area unit in Palmerston North.

Methods: Aggregation of original S.P.S.S. system file and further analysis.

Present Situation: Aggregation has been achieved but no analysis as yet.

(4) RURAL WORKERS IN NEW ZEALAND UP TO 1936 (N.B. private research project)

Aims: To write a social history of rural workers and work in New Zealand until the passing of the Agricultural Workers' Act of 1936.

Methods: Collection of data from large range of sources, e.g. archives (Government, Alexander Turnbull), official and other publications, newspapers, official statistics.

Present Situation: A large amount of material has been collected and several articles and papers have been produced as a result. The longer-term objective is the writing of a monograph on the subject.

PATRICIA MAUNIER
MINISTRY OF AGRICULTURE AND FISHERIES

At the request of the Northland Agricultural Advisory Committee, and with funding from the Social Sciences Research Fund Committee, a major project on land use

change in Northland was begun early in 1982 by Professors Warren Moran and Grant Anderson of the Auckland University Geography Department. The aim of the project was to study the causes and consequences of the long term trend which has been taking place in Northland, from dairying to other forms of land use, in particular beef farming.

My involvement in the project began shortly after its conception and still continues, with the various publications which relate to it having now been mostly completed.

While it constitutes only 1 of many facets of the study, an understanding of family and non-family, paid and unpaid labour forms an essential part of the profile of present day dairy farms presented in the study reports, and to an understanding of the reasons why certain farms ceased factory supply. In the course of the interviews with farmers, data was obtained on all labour input on the farm in the 1982-83 season, as well as information on off-farm work carried out by those involved in the farm enterprise, and labour employed on the farm between 1974 and 1982.

While I have been involved in aspects of the above analysis of labour, I have also taken a particular interest in the role of women on the Northland farms. The paper I have written about this looks at the part women play in farm labour and at correlations between involvement in farm work and certain other characteristics. Over the next few months I will be extending this analysis to look at the whole range of people involved in the farm enterprise.

PHILIP S. MORRISON
DEPARTMENT OF GEOGRAPHY
VICTORIA UNIVERSITY OF WELLINGTON

THE GEOGRAPHY OF LABOUR AND EMPLOYMENT IN NEW ZEALAND

The aim of this research is to account for regional trends in employment over the period 1971 to the present. The annual surveys of the Department of Labour are the primary data source and are being examined in 3 phases. The first descriptive phase has been completed and has resulted in graphical accounts of regional and sectoral trends in full-time employment over the 12 years 1971 to 1982. (An article has been published in *Pacific viewpoint* and another is forthcoming in *New Zealand geographer*. See bibliography.)

The data file is updated each year after the release of the February survey. The file contains the number of jobs held full-time by sex by 21 employment districts by 23 sectors for each year 1971 to 1984. Additional data differentiating the above by sex, type of employment (full-time, part-time and working proprietors),

additional service sectors and status (public or private) have been entered for 1983. This expanded coverage will be extended to 1984. The use of S.A.S. for the manipulation of these files is documented in the 1984 conference paper (see bibliography).

The second phase of the research is now underway and involves an application of log-linear models to questions of geographical variation in labour market behaviour. The first of these will estimate those regional and sectoral as well as temporal parameters associated with the shift of jobs between full-time and part-time categories. The aim will be to identify the extent to which such job "movements" are associated with particular industries during particular time periods and the extent to which these movements vary among local labour markets. A major question will be the extent to which these trends persist once differences in sex-by-type interactions are considered.

The third phase of the research will aim at placing the above empirical work into a theoretical framework. The emphasis will be on developing testable propositions regarding geographical variations in the character and state of the labour market. The empirical work in the first 2 phases of the research constitute an exploration of an existing data set for its potential as a testing ground for geographical theory.

NEW ZEALAND PLANNING COUNCIL
EXTRACT FROM 1984/85 WORK PROGRAMME - EMPLOYMENT
PROJECT CONTACT : DENNIS ROSE

AIMS

- (a) To establish a clearer understanding of the causes of unemployment
- (b) To develop appropriate policy responses

BACKGROUND

Employment-related issues are envisaged as the major area of project work within the Council this year, and all monitoring groups are being encouraged to pay attention to these. Council members themselves will be focusing attention on a number of key and controversial issues (such as, for example, the relevance of the real wage level, and the role of markets and planning mechanisms in employment policy).

Secretariat members will undertake research in 2 main areas - autonomous employment and local initiatives.

The global feature of corporately-focused employment frameworks to sustain full employment suggests the possibility of encouraging alternative employment patterns. A large segment of the population has always opted for self-employment (farming,

the professions and many trades and services). What can be done to encourage self-reliance, either individually or cooperatively? The topic will be addressed through a review of trends in self-employment and of those natural and legal (or institutional) factors which might be held to constrain the development of autonomous employment modes.

Whatever its cause, the consequences of unemployment impact at the local level. This has led many local authorities and other organisations to examine the scope for remedial action by them, including administration of Labour Department schemes and longer term encouragement of economic development. A number of local authorities have prepared substantial reports on employment policy. The project will review experience to date and attempt to evaluate it with a view to guiding future policy.

The Council is also exploring the possibility of promoting out-of-house work on the determinants of labour force participation and migration.

NEW ZEALAND PLANNING COUNCIL
POPULATION MONITORING GROUP
REPORTED BY ANDREW FRASER

The main work of the Population Monitoring Group (P.M.G.) in the 1983/84 year was the production of an overview report, *The New Zealand population : patterns of change*, which reviews past and present demographic trends and presents projections as far forward as 2016. It is structured around 4 main themes - population growth, population composition, geographical distribution, and the implications of each for policy.

The labour force was discussed in this report under the heading of population composition. This part of the report, written primarily by Jacques Poot, analyzed several of the factors of labour supply, both in the past and the future.

In view of the fact that the Planning Council is working in the labour force and employment area in 1984/85, and in order to follow up this aspect of its published report, the P.M.G. has decided that it will perform some more detailed research of its own on labour supply.

At this stage the resources which will be available to the group have not yet been determined. However, it is likely that work will be pursued in the areas of labour force participation and the determinants, and the effects on the labour force, of migration.

The group is also intending to do some preliminary investigatory work in the area of family structure and household size.

ROSEMARY NOVITZ
 DEPARTMENT OF SOCIOLOGY
 UNIVERSITY OF CANTERBURY

GENDER DIVISIONS IN NEW ZEALAND HOUSEHOLDS : PAID WORK, DOMESTIC WORK AND THE
 INFORMAL ECONOMY

In the last decade, feminists have focused on the need to understand the relationship between women's involvement in employment and their participation in unpaid housework and childcare. At the same time, sociologists and geographers interested in the informal economy have also been directing attention at unpaid work and its relationship to the organisation of the formal economy. Feminist analyses have tended to neglect men's non-market work; those writing about the informal economy have tended to neglect women's domestic labour. The insights offered by both the literature on domestic labour and the informal economy are the source of planned research into the way households function as the nexus of a variety of economic relationships associated with different forms of paid and unpaid work.

The aim of this research is to investigate the way work is divided on the basis of gender within some Christchurch households and the different economic relationships associated with that work. It will involve interviews with the adult members of approximately 60 households. The focus of the interviews will be on the paid and unpaid work done by household members which is directed at meeting what they define as their household's material and social needs.

Those participating in the study are being asked to agree to an initial interview which will take the form of a conversation between adult members of the household and a female and male interviewer. The object of this conversation is to tease out the variety of different types of work in which they are involved, and the reasons people have for dividing work between them in certain ways. This should provide information about the objective reality of who does what, and the subjective understandings of women and men which inform and reproduce gender divisions within households. Following the initial interview, separate interviews with individual household members are planned.

DAVID PEARSON
 DEPARTMENT OF SOCIOLOGY AND SOCIAL WORK
 VICTORIA UNIVERSITY OF WELLINGTON

WORK, EMPLOYMENT AND MIGRANT LABOUR

Over the past decade I have conducted research on various aspects of social

inequality in New Zealand. At present I am exploring some of the themes introduced in the monograph *Eclipse of equality* (see bibliography) in order to organise a subsequent research project. One of my main interests concerns the relationship between the State and the position of ethnic minorities in New Zealand. In particular, I wish to explore the possible distinctions - legal, political and social - between internal and external ethnic migration patterns.

State policies towards indigenous and non-indigenous groupings (e.g. Maori and non-Maori Polynesians) will be explored within an historical perspective. One of the major influences on class position is the labour market, so I intend to study the movements of ethnic groups in the employment sector as a vital measure of the constraints (or lack of them) placed upon specific sections of the New Zealand work force. In the long run, I would hope to place New Zealand's pattern of State policy within a comparative framework so that international comparisons can be drawn.

As one can see, my research plans are in the earliest possible stages so a more focused programme, undoubtedly incorporating changes from the above, will not be evident until next year.

JACQUES POOT
DEPARTMENT OF ECONOMICS
VICTORIA UNIVERSITY OF WELLINGTON

My research interests in the labour and employment area can be classified into 3 sub-areas:

(1) THE MEASUREMENT OF HIDDEN UNEMPLOYMENT

I have looked at : (a) the relationship between labour supply in theory and observed measures of excess supply by means of census unemployment and registered unemployment data; and (b) supply responses to labour market disequilibria (additional and discouraged worker effects). (References to work in this area, published jointly with Peter Brosnan, are included in the bibliography.)

(2) TRENDS IN LABOUR FORCE PARTICIPATION AND AGGREGATE LABOUR SUPPLY

As a member of the New Zealand Planning Council's Population Monitoring Group (P.M.G.) I last year prepared projections of the New Zealand resident full-time labour force 1981-2016 on the basis of population projections provided by the Department of Statistics and some assumptions about trends in full-time labour force participation. The results are included in P.M.G. Report No. 1 (*The New Zealand population : Patterns of change* - see bibliography) published in February. The P.M.G. has decided that it should this year explore or commission further research in the

area of labour supply and migration (in addition to its role of monitoring key demographic factors). This research could include:

- (a) Econometric models of full-time participation, updating the work of Prue Hyman (1978, 1979).
- (b) Determinants of part-time labour force participation.
- (c) The importance of the informal economy in the light of demographic trends.
- (d) Trends in New Zealand labour force participation contrasted with the experience of comparable countries.
- (e) Sensitivity analysis of labour supply projections to demographic and socio-economic behavioural assumptions.

(3) LABOUR MOBILITY, IN PARTICULAR GEOGRAPHIC MOBILITY

My on-going research in this area includes:

- (a) Multistate analysis of labour force dynamics.
- (b) Models of gross worker migration.
- (c) Analysis of migration by demographic and socio-economic characteristics (age, sex, household composition, ethnic origin, industry, occupation, etc.).
- (d) Tests of cumulative inertia in labour mobility processes.
- (e) Problems in the measurement of mobility.

My recently completed Ph.D thesis on models of New Zealand internal migration and residential mobility (see bibliography) includes a model of inter-urban worker migration and an analysis of duration of residence distributions by occupation (both on the basis of 1976 Census data). Major conclusions are the reconfirmation of the human capital framework and the significance of cumulative inertia. Inter-urban migration can be explained in terms of distance, Cook Strait, the four main urban centres, previous migration, climate, income, prices and employment opportunities. Cumulative inertia was present for most occupations and particularly strong among female production workers and male agricultural workers. Preliminary work with (as yet unpublished) 1981 Census data on internal migration includes stock-flow studies of population migration between Statistical Areas by age and sex (in particular with respect to the link between 1 and 5 year flows) and a comparison of 1976 and 1981 geographic mobility statistics. The decline in the aggregate mobility rate (for 5 years) from 44.0 percent for 1971-76 to 43.3 percent for 1976-81 seems small but is nevertheless interesting since the mobile cohorts did not yet decline as a percentage of the total population. Moreover, inter-area migration is declining with an increase in intra-locality movers from 46 percent for 1971-76 to 54 percent for 1976-81. These observations seem plausible in the light of labour market developments in the late 1970s, but need further in-depth study.

RICHARD SAWREY
THE FAMILY CENTRE
LOWER HUTT

The Family Centre is a multicultural counselling and community work agency whose staff work with unemployed and homeless people.

A large component of my work is involved in research in such areas as unemployment, homelessness and presently in assessing the success of our volunteer support scheme. My role in respect of research in labour and employment is gathering a data base which the staff use for their own information and also for use in media releases.

The most recent paper completed in this area by members of our staff was by Charles Waldegrave and Rosalyn Coventry : "Unemployed school leavers, their feelings, their experiences and their suggestions" (see "forthcoming" section of bibliography). This paper addresses the impact of unemployment for a sample of school leavers. Four hundred 1979 and 1980 school leavers were contacted in 1981 by phone and letter to ascertain whether they had been unemployed for a period of 2 months or more since leaving school, or if they had been working and/or studying. Unemployed school leavers were asked to complete a questionnaire on their job application history, self-esteem, use of time, and suggestions for the unemployment situation. Results found that differences in ethnicity, numbers of years schooling, academic qualifications and socio-economic backgrounds were significant indicators for unemployment. Questionnaire results raised issues for the Labour Department, confirmed literature on the detrimental effects of unemployment for psychological health and well-being, and showed the importance of security, activity, work preparation and understanding by society, for unemployed people.

The major interests at the Family Centre in respect of research in this area are:

- (a) Cultural and ethnic aspects of the employment market.
- (b) The psychological effects of long term unemployment.
- (c) Local labour markets especially in reference to Lower Hutt with its numerous closures.
- (d) Labour alternatives such as cooperatives.

SUSAN SHIPLEY
TRAINING POLICY DIVISION
DEPARTMENT OF LABOUR

My present position is Advisory Officer (Women's Employment) at the Head Office of the Department of Labour. My work covers all matters relating to women's employment, unemployment and training.

The research which I do is always closely bound up with the process of policy-making. A major project which I have been involved in over the past couple of years is the Department of Labour's Positive Action Programme for Women in employment and training. This has involved research at several stages, but particularly at the outset when the problem was being investigated (Why are there more young women unemployed than young men? And why do they stay unemployed longer?) and later, in the evaluation of a pilot programme for unemployed young women in Taranaki. The evaluation has now resulted in an extension of the Positive Action Programme, in modified form, to other districts in New Zealand.

A second current research interest is a review of the workings of the Maternity Leave and Employment Protection Act 1980, which has been in operation for 3 years. Unfortunately, the Act contained no provision for the keeping of official records on the use of maternity leave, so the first problem for the research project is where to find the necessary basic data. It is hoped that the review will be completed in 1984.

SOCIAL SCIENCES RESEARCH FUND COMMITTEE
REPORTED BY JUDITH JOHNSTON

At the present time, the Social Sciences Research Fund Committee (S.S.R.F.C.) has been operational for 4 years. In that period, 50 grants have been awarded and 18 of these are directly related to labour and employment research. A major concern of the S.S.R.F.C. has been to encourage research into "state-of-the-art" or directions for labour and employment research as it has been obvious that little attempt has been made to pull research together, to review the findings and to identify the gaps.

PERSONAL RESEARCH

At the current time, involvement in 2 research projects with relevance to labour and employment.

- (1) Motueka - Coping with Change: This is a small research project established

to examine the social implications on a small community of major changes brought about by decisions to reduce the quantity of New Zealand grown tobacco - a major source of work and employment for residents. One publication is already available (*New Zealand geographer*, see bibliography) and the major report is due to be completed in July/August 1984.

(2) Energy Scenarios: This research project funded by the New Zealand Energy Research Development Committee and the Ministry of Energy aims to examine longer term patterns of development and change in New Zealand. This is an interdisciplinary study with a considerable emphasis being placed on social aspects including attitudes to work, patterns of time use and forms of income or support. Preliminary release of the draft report is due in mid-May with a final report due late in 1984.

KIM SAFFRON
SOCIAL INDICATORS SECTION
DEPARTMENT OF STATISTICS

The Social Indicators Survey was conducted in 1980/81, using a nationally representative sample of 6,891 respondents. The questionnaire included a section on employment.

A series of questions was used to identify not only the employed and the unemployed, but also those who would like to work if a suitable job were available. This made it possible to provide estimates of the percentage of the population constrained from seeking work for various types of reasons : those giving specified reasons were defined as discouraged unemployed.

The employed were asked questions about their occupation, industry, and working hours, whether they would like to work more or fewer hours, how they travelled to work and how long the journey took, their job security and job satisfaction.

Some of the findings were:

- (a) That about 2 percent of women aged 15-64 were seeking full-time work, while about 6 percent were not seeking full-time work because they wanted part-time work, or for other reasons indicating that they were discouraged unemployed.
- (b) More than a third of workers had worked at some time between 7.00pm and 7.00am in the fortnight before their interview; nearly a half had worked at some time during a weekend in the previous month.
- (c) About half of those working did not want to change the number of hours they worked. Men were more likely than women to want to work longer hours.
- (d) About 6 percent of workers thought that they were likely to lose their job,

be laid off, or put on short time within 12 months. Job security varied by occupational group.

- (e) Most workers were satisfied with their job. Job satisfaction varied by occupational group.

Some employment data have been released, and a full report on the survey has been written and is due to be published.

DAVID F. SMITH
DEPARTMENT OF BUSINESS ADMINISTRATION
VICTORIA UNIVERSITY OF WELLINGTON

My main area of research at present is in the area of the growth of unionisation in New Zealand's white-collar workforce. I am completing a research study financed by the S.S.R.F.C., the University Grants Committee, the B.P. Industrial Research Award and the Victoria University Internal Research Committee. The study explores changes in the structure of the New Zealand workforce between 1956 and 1981, using reclassified census data. It also examines the unionisation of white-collar workers by combining workforce data with data on union membership collected from the unions themselves. Influences upon white-collar unionisation are discussed.

Other areas of research associated with this study are in the field of occupational segregation, and changes in the structure of the workforce. Work is also being carried out on managerial and professional unionism.

NICHOLA SWAINSON
DEPARTMENT OF POLITICAL SCIENCE
UNIVERSITY OF CANTERBURY

FEMALE WAGE LABOUR IN NEW ZEALAND : THE CASE OF THE TEXTILE AND GARMENT INDUSTRIES
(1) FEMALE PARTICIPATION AND THE LABOUR FORCE

The first part of this study will provide a profile of female participation in the labour force. This will be shown for a ten year period (1973-1983). The aim is to look at the changes in the areas of female participation and the proportion of part-time and full-time workers in different sectors.

Theoretical Perspective: Dual labour market ideas are often used to explain the predominance of women in occupations with low wages and status. We will use some of the socialist-feminist literature which draws attention to the ways in which the specific advantage of women workers to employers is determined by the sexual

division of labour as a whole and not confined to the production process. Studies of reproduction illustrate the domestic constraints upon women's "free" participation in the labour market.

(2) CASE STUDY : WOMEN IN THE NEW ZEALAND TEXTILE AND GARMENT INDUSTRY

Industrial restructuring in New Zealand over the past 5 years has involved the rationalisation of "less efficient" sectors of the economy in a drive to restore conditions of profitability in a time of recession. The Industries Development Commission (I.D.C.) has become a major instrument of Government restructuring, which has operated at 2 main levels : (a) State policy (b) market/individual enterprises.

We have chosen the textile and garment industries because of the large numbers of women workers in the industry (69 percent overall and 90 percent of the part-time workforce). The intention is to examine the reorganisation of these industries and we will use Massey and Meegan's (*The anatomy of job loss*) categories of job loss:

- (a) intensification;
- (b) investment and technical change;
- (c) rationalisation.

The study will use I.D.C. reports, industrial census data, Labour and Statistics Department data on the labour force.

There will also be a case study of one of the important firms in the area - Lane Walker Rudkin.

THE TREASURY
REPORTED BY GEORGE BARKER

Treasury is not currently engaged in any research projects on labour and employment questions. Indeed, our role is not primarily that of a research institution, but as economic and financial adviser to the Government. It is in that capacity, and as a "consumer" as well as generator of research issues that our interest in labour and employment questions arises.

It would seem helpful to describe briefly the Treasury's current perspective on economic policy and labour market issues. Our economic policy advice takes two directions : The first is macroeconomic policy, a general equilibrium approach aimed at improving economy-wide adjustment. The second is a microeconomic approach, looking at particular factor markets within the economy, and at the nature of the adjustment process in each market.

With regard to the labour market, Treasury considers that more research on the dynamics of the market would be useful. The labour market is not working effectively,

the evidence of that being higher levels of unemployment in recent years, and particularly longer term unemployment. Nevertheless, to concentrate solely on numbers unemployed is to ignore the reality that large numbers of people change jobs each year. The flows onto and off the unemployment register are substantial. More research therefore into the nature, duration and incidence of unemployment would be useful.

Treasury's particular interest, when considering labour market adjustment, is to identify barriers or rigidities that are preventing or slowing down the adjustment process. Questions that we would wish to address or see addressed are:

- (a) wages and employment;
- (b) barriers to entry to trades and professions;
- (c) occupational licensing;
- (d) transferability of skills between trades, professions, etc.;
- (e) the Government policy environment, i.e. what are the costs of Government interventions/ regulations/requirements?
- (f) is employment-related Government assistance targetted effectively?

Apoin to emphasise is that the approach being taken is to concentrate on the nature of the labour market or markets rather than on employment in particular sectors or industries.

Treasury is also interested in promoting study and research into training and skill requirements in the labour markets. What is the effective rate of assistance to skill acquisition in New Zealand? How effective is subsidised employment in promoting or maintaining human capital development?

Finally, questions relating to the need and impact of income support on employment in the economy would also be a useful focus for research.

ALAN WILLIAMS
DEPARTMENT OF BUSINESS STUDIES
MASSEY UNIVERSITY

(1) MANPOWER IN THE NEW ZEALAND COAL INDUSTRY

A final draft report has been completed for the New Zealand Energy Research Development Committee. A spin-off paper - 'Manpower planning in backward industries: A New Zealand case study' - has been accepted by the *International journal of manpower*.

(2) WORK IN PROGRESS

A methodologies study of skills needed by manpower specialists in the energy

sectors of developing economies.

(3) WORK IN PLANNING

- (a) A bibliographical study of occupational classifications systems for small businesses.
- (b) Input-output findings in small businesses, with special reference to employment multipliers : selected studies. (With J. Hicks and S. Chatterjee.)
- (c) Employment multipliers as a function of organisational development in the tourism industry.
- (d) The changing occupational roles of the nursing profession.

WORK AT UNIVERSITY OF AUCKLAND

This summary of work being done by persons at Auckland University, who were unable to attend the workshop, was prepared by Charles Perrings.

(1) George Barker, Treasury, is currently completing a Masters research essay on structural change and unemployment in New Zealand.

(2) John Deeks, Department of Management Studies, is currently working on the "redistribution of work" in New Zealand. A working paper will be available later in the year.

(3) Charles Perrings, Department of Economics, is working on a paper with Michael McKee of the University of Western Ontario:

"Monopoly, Technology and employment : the employment implications of the regressivity and consequential inferiority of inputs."

(4) Robert Scollay, Department of Economics, is examining the behaviour of the labour market as a component of the New Zealand economy in the period since 1973. This is to be one of the forthcoming collection of essays on the New Zealand economy being prepared by members of this department under the direction of Geoff Braae.

(5) Susan St John, Department of Economics, is developing alternatives to superannuation, unemployment, family and disability benefits. The first results are to appear shortly as a working paper:

"Reform of the welfare state : a negative income tax for superannuitants."

(6) Christine Woods, a masters student in the Department of Economics, is preparing a thesis on women in the workforce.