

The
BEHAVIORAL
MEASUREMENTS
Letter

Behavioral
Measurement
Database
Services

Enriching the health and behavioral sciences by broadening instrument access

Vol. 2, No. 1
Fall 1994

Looking Inside HaPI

Searching for Instruments on a Particular Topic

One objective of HaPI is to provide access — in different disciplines/professions — to instruments designed to measure the same topic or concept. Each discipline or field (e.g., psychology, medicine, nursing) has its unique orientation and its distinctive definitions of a particular topic or variable. As a result, professionals in different fields have developed different instruments to measure the same variable. Users of HaPI gain a wealth of information by looking at the many ways in which scientists from different subject matter areas measure a particular concept. To illustrate this, we have chosen the construct of “social support,” because as Wortman has documented (Cancer, 1984) social support plays: “an important role in protecting people from the effects of stress, preventing physical and mental disorders, and ameliorating illness and psychiatric symptoms.” Presented below, therefore, are three entries from HaPI that describe social support instruments germane to: (a) medicine, (b) psychology, and (c) nursing.

Search Sample 1: Medicine

- AN 9906. 8905.
- TI Duke Social Support and Stress Scale. (DUSOCS). PS.
- AU Parkerson, George R., Jr.; Michener, James L.; Wu, Lawrence R.; Finch, James N.; Muhlbaier, Lawrence H.; Magruder-Habib, Kathryn; Kertesz, Joseph W.; Clapp-Channing, Nancy; Morrow, Diana S.; Chen, Anthony L.T.; Jokerst, Elizabeth.
- YR 1986.
- SO Parkerson, G.R., Jr., Michener, J.L., Wu, L.R., Finch, J.N., Muhlbaier, L.H., Magruder-Habib, K., Kertesz, J.W., Clapp-Channing, N., Morrow, D.S., Chen, A.L.T., & Jokerst, E. (in press). Associations among family support, family stress, and personal functional health status. *Journal of Clinical Epidemiology*.

- DE Psychological-Stress. Social-Environments. Social-Perception. Social-Stress. Social-Support-Networks. Stress-Psychological.
- NQ NUMBER OF QUESTIONS: 24.
- ST SUBSCALE TITLES: Family Support. Nonfamily Support. Social Support. Family Stress. Nonfamily Stress. Social Stress.
- AB The Duke Social Support and Stress Scale (DUSOCS) is designed to assess respondents' perceptions of the amount of support received from, and the amount of stress caused by, family members and nonfamily members. Family members are grouped in six categories: wife, husband, or significant other; children or grandchildren; parents or grandparents; brothers or sisters; other blood relatives; and relatives by marriage. There are four categories of nonfamily members: neighbors; coworkers; church members; and other friends. This self-administered questionnaire asks respondents to indicate (a) how supportive each family member and each nonfamily member is for respondents at the present time; and (b) how much each person (or group of persons) is a stress for respondents at the present time. Three-point rating scales range from “none” to “a lot.” Respondents are also requested to indicate the person who is most supportive and the person who is causing them the most personal stress. Four separate scores are generated: family support, family stress, nonfamily support, and nonfamily stress. In addition, total social support and total social stress scores can be derived by combining family and nonfamily components.
- RE RELIABILITY: REPORTED Y/NOT REPORTED X. Internal Consistency: X. Parallel Forms: X. Test-Retest: Y. Interrater: X.
- VA VALIDITY: REPORTED Y/NOT REPORTED X. Content: Y. Criterion: X. Construct: Y.
- RF REFERENCES: X.
- AT ANALYST: Dr. G. R. Parkerson, Jr., Department of Community & Family Medicine, Box 2914, Duke University Medical Center, Durham, NC 27710.

Search Sample 2: Psychology

- AN 8699. 8909.
- TI Perceived Social Support From Family. (PSS-Fa). PS.
- AU Procidano, Mary E.; Heller, Kenneth.
- YR 1983.

- SO Procidano, M.E., & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology*, 11, 1-24.
- DE Family. Interpersonal-Interaction. Interpersonal-Relations. Social-Environment. Social-Environments. Social-Perception. Social-Support-Networks.
- NQ NUMBER OF QUESTIONS: 20.
- ST SUBSCALE TITLES: X.
- AB The Perceived Social Support From Family Instrument (PSS-Fa) is designed to measure the extent to which an individual perceives that his/her needs for support, information, and feedback are fulfilled by family members. The PSS-Fa consists of 20 declarative statements to which the respondent answers "yes," "no," or "don't know." For each item, the response indicative of perceived social support is scored as +1, so that scores can range from 0, indicating no perceived social support, to 20, indicating maximum perceived social support. The "don't know" category is not scored. The PSS-Fa is a self-report questionnaire. Sample items include: "Certain members of my family come to me when they have problems or need advice," "I rely on my family for emotional support," and "Members of my family are good at helping me solve problems." A related instrument, Perceived Social Support From Friends (PSS-Fr), assesses the extent to which respondents perceive that their needs for support, information, and feedback are fulfilled by friends.
- RE RELIABILITY: REPORTED Y/NOT REPORTED X.
Internal Consistency: Y.
Parallel Forms: X.
Test-Retest: Y.
Interrater: X.
- VA VALIDITY: REPORTED Y/NOT REPORTED X.
Content: X.
Criterion: Y.
Construct: Y.
- RF REFERENCES: Procidano, M.E. (in press). The nature of perceived social support. In C.D. Spielberger and J.N. Butcher (Eds.), *Advances in personality assessment* (Vol. 9). Hillsdale, NJ: Lawrence Erlbaum Associates.
- AT ANALYST: Dr. M. E. Procidano, Department of Psychology, Fordham University, Bronx, NY 10458.
- relationships that are usually informal or non-contractual); (b) reciprocity (the perceived occurrence or availability of an exchange or returning of psychological or tangible goods and services); and (c) conflict (perceived discord or stress in relationships). Each of the above three subscales contains 13 items. Designed for use with adults, this self-report questionnaire contains 5-point Likert-type scales ranging from "strongly disagree" to "strongly agree" or from "never" to "very often." A final item on the IPRI asks the respondent to list up to 20 people in his/her social network ("people who are important to you") and to state his/her relationship to each person e.g., friend, neighbor).
- RE RELIABILITY: REPORTED Y/NOT REPORTED X.
Internal Consistency: Y.
Parallel Forms: X.
Test-Retest: Y.
Interrater: X.
- VA VALIDITY: REPORTED Y/NOT REPORTED X.
Content: Y.
Criterion: Y.
Construct: Y
- RF REFERENCES: Tilden, V.P., Nelson, C., May, B.A., & Mejo, S. (1988, May). Construct validation of the Tilden Interpersonal Relationships Inventory. Paper presented at the 21st annual Communicating Nursing Research Conference, Western Society for Research in Nursing, Salt Lake City, UT.
- Tilden, V.P. & Stewart, B.J. (1985). Problems in measuring reciprocity with difference scores. *Western Journal of Nursing Research*, 7, 381-385.
- AT ANALYST: Dr. V.P. Tilden, Mental Health Nursing, The Oregon Health Sciences University, 3181 S.W. Sam Jackson Park Road, Portland, OR 97201.

Search Sample 3: Nursing

- AN 8666. 8909.
- TI Tilden Interpersonal Relationships Inventory. (IPRI). PS.
- AU Tilden, Virginia P.
- YR 1987.
- SO Tilden, V.P., & Galyen, R.D. (1987). Cost and conflict: The darker side of social support. *Western Journal of Nursing Research*, 9, 9-18.
- DE Adults. Interpersonal-Interaction. Interpersonal-Relations. Social-Environments. Social-Support-Networks.
- NQ NUMBER OF QUESTIONS: 39.
- ST SUBSCALE TITLES: Social Support. Reciprocity. Conflict.
- AB The Tilden Interpersonal Relationships Inventory (IPRI) measures three dimensions of social network functions and interpersonal relationships: (a) social support (the perceived availability or enactment of helping behaviors by persons with whom one is engaged in

Searching for Instruments on Many Topics

To illustrate scope of coverage in the HaPI database, we present titles (and authors) of an instrument generic to each of 13 disciplines/professions. The titles have been selected to represent instruments related to either a discipline/profession in general or to a particular area within a subject matter. Clearly, these titles may not adequately portray an area's content. Furthermore, it is not uncommon to find similar titles in the same and/or in different disciplines/professions, undoubtedly indicating that the needs and interests of researchers and practitioners cut across subject matter content. The following listing captures this wide spectrum of instruments that can now be retrieved through HaPI.

Public Health

- TI Occupational Health Questionnaire: Indoor Air Quality.
- AU Brown-Skeers, Vicki M.

Communication

- TI Communication Styles Q-Set.
- AU Stephen, Timothy D.; Harrison, Teresa M.

Psychology

- TI Cognitive Bias Questionnaire.
- AU Krantz, Susan E.; Hammen Constance L.

Organizational Behavior

- TI Job Motivation Inventory.
- AU Kahoe, Richard Dean.

Nursing

- TI Gortner Values in the Choice of Treatment Inventory.
- AU Gortner, Susan R.

Medicine

- TI Arthritis Impact Measurement Scales. (AIMS).
- AU Meenan, Robert F.; Mason, John H.; Kazis, Lewis E.; Anderson, Jennifer J.

Sociology

- TI Political Behavior.
- AU Rasinski, Kenneth A.

Physical Education

- TI Athletic Injury Questionnaire — Athlete Assessment.
- AU Crossman, Jane; Jamisson, John.

Social Work

- TI Basic Shelter Interview Schedule.
- AU Ropers, Richard H.; Boyer, Richard.

Psychiatry

- TI Eating Disorder Inventory. (EDI).
- AU Garner, David M.; Olmsted, Marion P.; Polivy, Janet.

Human Resources

- TI Office Attitude Questionnaire.
- AU Biberman, Gerald.

Gerontology

- TI Elders Life Stress Inventory.
- AU Aldwin, Carolyn M.; Levenson, Michael R.; Spiro, Avron, III; Bosse, Raymond.

Dental Medicine

- TI Dental Pain and Stress Measure — Tooth Extraction Form.
- AU Chaves, John F.; Brown, Jude M.

These diverse titles reflect the broad coverage in HaPI of instruments in the health and behavioral sciences. The rich diversity of information on measurement instruments makes HaPI a unique resource for efficient retrieval of hard-to-find measurement information. In addition, the access provided by HaPI to instruments constructed to measure the same concept (e.g., social support, quality of life) encourages ongoing development and validation, which is, after all, the *sine qua non* of sound measurement and, therefore, of effective research.

Linda Perloff, Editor

Clinical Measurement for Primary Care

Helping Helpers Help Patients Help Themselves

Scott H. Frank

There are many reasons to create or use clinical psychosocial measurement tools in medical practice. One can do so in order to demonstrate the relative importance of a psychosocial construct through delineating its incidence or prevalence; or to “prove” a point regarding that construct; or to demonstrate that a construct in fact exists; or to demonstrate the relationship between the construct and issues of importance to the practice of medicine. This column, however, will focus on realistic measurement of useful psychosocial constructs in the context of busy clinical practice, in order to allow practicing clinicians to better help their patients.

For practicing clinicians, even the word “construct” is problematic, since for many clinicians, it implies an artificial edifice instead of a naturally occurring phenomenon. At least for the purposes of this column, a construct will be defined as *an idea for describing natural phenomena built into a structure which can be perceived as real because of its replicability*. Those who understand the construct are more likely to recognize those characteristics and patterns which contribute to the body and form of that idea, expressed as suffering in our patients. Once recognized, the construct may be more productively addressed.

As a family physician, my emphasis will be on measurement in the doctor’s office and in primary care settings. Many of the points made here will be translatable to nursing, social work, or medical specialty settings, while others may be more unique to the practice of family medicine. But because family medicine is an inclusive generalist discipline, the issues addressed can span the horizon of problems in clinical settings. We address problems from prenatal care, to adolescence, to parenting, to death and dying; from mood states, to states of being, to psychiatric diagnoses; men and women, individuals or families, educated or illiterate. I have personally found great clinical utility in measures addressing constructs as diverse as psychiatric diagnosis (depression or anxiety), stress, alcoholism, drug abuse, nicotine dependence, eating disorders,

domestic violence, social support, family function, somatization, self-esteem, and functional status. This list is by no means exhaustive, but gives a flavor of the variety of topics that can be evaluated.

If we believe that the issues should fit into the context of patient care (and I do), there are certain "rules" to be followed in order to allow practicing clinicians to accept the utility of a clinical measurement instrument and the construct it purports to measure.

- A construct doesn't exist unless it can be measured (and measured accurately).
 - Well validated and reliable questionnaires are the "laboratory tests" of psychosocial problems, and pencil and paper are often our only laboratory tools. Use the same language to communicate the accuracy of these psychosocial measures as is used with other medical screening procedures.
- A construct cannot be measured unless it is asked in language the patient can understand.
 - Simplicity is next to cleanliness, and we know what that's next to.
- It doesn't matter whether a construct exists if it cannot be measured efficiently.
 - Practicing physicians are faced with an overwhelming volume of voices shouting instructions regarding what must be done to offer competent, comprehensive, preventive care to patients. Thus, efficiency is a top priority.
- A construct is not worth measuring unless the result implies a difference in approach for that patient.
 - Don't expect me to screen for something that I can do nothing about.
- A construct is not worth measuring unless the results can be easily tabulated and easily communicated.
 - Simple, practical scoring systems lead to actual clinical use.
- A clinical measure has no utility unless it is flexible enough to recognize the uniqueness of my practice and my patients.

When it comes to clinical measurement keep it **SAFE**: Simple, Accurate, Flexible, and Efficient. Future installments will focus on instruments available for addressing different topics, how one

judges their utility, and how (or when) to create your own instruments. Please let us know if there are topics of special interest you would like to see discussed next.

Scott H. Frank is Director of the Division of Pre-Doctoral Education in the Department of Family Medicine at Case Western Reserve University. He has an M.D. from the University of Michigan and a Master of Science in Family Medicine from Case Western Reserve University. In addition to clinical practice, research, and teaching, Dr. Frank teaches creative writing to medical students. His primary academic interest involves integration of psychosocial issues into clinical practice. Dr. Frank has developed instruments for the measurement of perceived stress, family stress, family capability, family alcohol problems, tobacco dependence, and anomy.

HaPI Advisory Board

- Timothy C. Brock, PhD
Psychology, Ohio State University
- Marilyn Lester Brooks, PhD
National-Louis University Library
- William C. Byham, PhD
Development Dimensions International
- Donald Egolf, PhD
Communication, University of Pittsburgh
- David F. Gillespie, PhD
*George Warren Brown School of Social Work
Washington University*
- Richard L. Hughes, MD
*Continental Bank and Northwestern University
School of Medicine*
- Robert C. Like, MD, MS
*University of Medicine and Dentistry of New Jersey
Robert Wood Johnson Medical School*
- Joseph D. Matarazzo, PhD
Oregon Health Sciences University
- Vickie M. Mays, PhD
Psychology, University of California, Los Angeles
- Michael S. Pallak, PhD
Behavioral Health Foundation
- Kay Pool, President
Pool, Heller & Milne, Inc.
- Ellen B. Rudy, PhD, RN, FAAN
University of Pittsburgh School of Nursing
- Gerald Zaltman, PhD
*Harvard University Graduate School
of Business Administration*
- Stephen J. Zyzanski, PhD
Case Western Reserve University School of Medicine

Faith in Measurement

David F. Gillespie

Measurement is an integral part of modern living. We have come to depend on measurement to a considerable extent, partly because measuring devices are so commonplace and pervasive in our society. We hang clocks on the wall and wear watches on our wrist to keep track of time. We keep scales in the bathroom to check our weight. Thermometers both indoors and outside give us temperature readings. Standard sized cans and packages help guide decisions in purchasing products. In addition, since package size alone can be misleading, usually the weight of the contents is included on the package to more precisely specify the contents. Various gauges and meters in our cars help monitor speed, the amount of gas in the tank, oil pressure, engine temperature, miles driven, and other things. Traffic lights tell us when to cross the street and when to wait. The number of measuring devices used today is immense and still growing. These and many more measuring instruments are constantly providing information that we use to make decisions. Without such information, our ability would be greatly hampered to make good decisions.

A byproduct of this pervasive use of measuring devices is a presumed confidence in their accuracy. To a large extent this confidence is justified, especially when applied to pressure gauges, clocks, thermometers, and other physical measuring instruments. They facilitate safety, efficiency, and comfort. Extensive checks by the federal government and other organizations help to maintain accurate measuring instruments. The National Institute of Standards and Technology, among its other activities, maintains the standards against which instruments for measuring distance and weight can be checked. Other governmental officials conduct regular checks of commonly used measuring devices such as the scales used in grocery stores and meters used in gasoline stations. Similarly, researchers are recurrently recalibrating the thermometers, burettes (graduated glass tubes with a valve at the bottom used for measuring liquid or gas), and weights used in physical science and engineering work to be certain that accuracy is maintained.

Measurement in the behavioral sciences has not yet achieved the degree of standardization that is characteristic of the physical sciences. In the physical sciences many of the factors that affect measurement readings have been identified. These factors are eliminated or minimized through adjustments. This means that a measurement reading by one scientist can be independently verified by others. In behavioral science research many of the variables that affect measurement have not been identified, and those that have often resist control or elimination. For example, responses coded by interviewers from the Census Bureau are partly a function of the specific question asked — What is your income? Marital status? Number of children? — and partly a function of social circumstances. These circumstances include the interviewer's appearance, the respondent's relations to the law, relations with neighbors, with employers, and so forth.

Despite the differences in standardization, there is increasing use of psychological, educational, and social measurement to help us make decisions. Aptitude and achievement tests as well as various psychological inventories are now in widespread use at all levels of education. Employers use skill tests and attitude scales to screen personnel. The use of honesty tests is expanding in banking, retailing, and other industries where opportunities for deceit and fraud are inherent in the work. Salaries in many organizations are tied to measures of work productivity. Insurance claims and other forms of accountability depend on measures of risk probability and disaster preparedness. The use of educational, psychological, and sociological instruments is almost as commonplace as the others. As we stop to think about these measurements, clearly they too have become woven into the fabric of modern living.

Although the measurement of psychological, educational, and sociological phenomena is less firm than the measurement of physical phenomena, the presumed confidence in measurement is carried over and applied by many people in good faith to measures of mental abilities, self-esteem, honesty, marital satisfaction, and other concepts studied by behavioral scientists. This confidence is justified sometimes, other times it is not.

For example, in my own research on disaster preparedness, my colleagues and I have encountered a rich breadth of meanings associated with preparedness, along with the resulting scattered and atheoretical understanding we have of the concept of preparedness. Yet, only when scientists can agree on what preparedness is will it be possible to study systematically its causes and consequences, and to design research that assesses costs and benefits associated with preparedness.

We have developed a 7-item summative measure of preparedness that asks respondents: (a) whether their organization has a specific emergency response plan to guide its operation in a disaster; (b) if yes, how long it has been since the emergency response plan was reviewed and updated; (c) during the past three years, how many different times a representative of their organization has participated in a training session related to disaster preparedness; (d) during the past three years, how many different times a representative of the organization has participated in simulated disaster exercises; (e) during the coming year, how often a representative will participate in a disaster response training session; (f) during the coming year, how often a representative will participate in a field disaster exercise; and (g) whether respondents are familiar with the meaning of the term "Integrated Emergency Management System" (Journal of Mass Emergencies and Disasters, 1987). We have had to sharpen our conceptualization of preparedness as an initial step toward a more refined construct. This process has reinforced our respect for the complexities inherent in deriving clear and precise operationalizations of social science constructs, and it is this process that will ultimately contribute to the advancement of a theory of disaster preparedness.

In conclusion, an understanding of how measures in behavioral research are constructed is essential to evaluating the worth of that research. If a study bases its conclusions either all or in part on measures that are inappropriate, out of date, or of dubious validity, the conclusions drawn from the research, even if otherwise adequately executed, will be suspect. Being able to recognize good measurement and make use of it is important in modern society, both in our personal and professional lives.

David F. Gillespie is Professor of Social Work at the George Warren Brown School of Social Work, Washington University, St. Louis. He received his PhD in Sociology from the University of Washington, Seattle. His career in the social work field has concentrated on organizational theory and disaster preparedness. Recent publications include Partnerships for Community Preparedness (Natural Hazards Research and Applications Information Center) and Quantitative Methods in Social Work: State of the Art, edited with Charles Glisson (Haworth Press). Dr. Gillespie is current Editor of the Journal of Social Service Research.

"For those who don't know,
even the prairie is a jungle"

(Ethiopian proverb)

Staff

Director Evelyn Perloff, PhD
 Operations Manager Anne Butz Canny, MN
 Database/Newsletter Editor Linda Perloff, PhD
 Editorial Specialist Philip Mabry, MA
 Systems Specialist Wanda McCarthy, MS
 Computer Consultant Alfred A. Cecchetti, MS
 Measurement Consultant Fred B. Bryant, PhD
 Indexer/Librarian Gina M. Neish, MLS
 Record Analysts Cheri L. Britt, MS
 Record Reviewer Jacqueline A. Reynolds, BA
 File Processor Betty Hubbard
 Business Service Coordinator ... Diane Cadwell
 Entry Processor Diane DiIanni

Phone: (412) 687-6850 Fax: (412) 687-5213

All the interests of my reason, speculative
as well as practical, combine in the three
following questions:

1. What can I know?
2. What ought I to do?
3. What may I hope?

Immanuel Kant

HaPI Thoughts

Asking Questions

Richard M. Perloff

It is a daunting task
This challenge — of how to ask
By ask I mean how to phrase the scientific query
So as not to make the respondent stray or tarry.

In this short poem I will discuss a much-maligned art
That in a way, focuses on how you start —
Start asking the question, but also how your
question mode
Can influence the responses that you must later
code.

For it turns out that one of the greatest survey
research terrors
(Far more serious than sampling methods or
sampling errors)
Is an issue that has caused many a reputation to be
defamed
I mean, of course, how the question's framed.

Question framing is a large area with no clear
border
It includes wording, context, and question order
It is an issue about which few are pious.
For poor frames lead to question bias.

For example, one study asked people to rate the
Army, Navy, and Air Force
(Check John Robinson and Robert Meadow's book
for the source)
Others were asked to rate the military; though the
four groups were in a way the same
The findings served to show that it's all in a name.

For when the name was specific as in the case of
the first three
The ratings were about as favorable as favorable
could be
But when the term military was the one to be rated
The scores would not exactly make West Point elated.

Questionnaire findings also get out of kilter
If you neglect to include an opinion filter
If you ask people straight out what they know
You may find a policy has many a friend — and
many a foe.

But — if you filter out those respondents who don't
know much about the matter
You separate out the idle chatter
Here the reward for being a survey research sleuth
Is that your responses hue closer to truth.

Also, order of questions is a methodological curse.
(Should you ask Option A last or ask it first?)
Choosing to ask Option A before Option B
Is a decision you cannot always make easily.

Then there's the problem of what's on the
respondent's mind
I'm referring here to a problem of a different kind
This falls under the rubric of context effect,
And it's a problem few can afford to neglect.

One early study found that people were very
favorable to the Israeli state
When the information they had heard the
interviewer state
Concerned the Russians sending equipment to
Israel's foes,
And suggested that the Israelis had many woes.

But when instead the context took another slant on
U.S. foreign relations
Mentioning instead that the U.S. sends arms to
many nations,
Opinions toward Israel were on the different end of
the attitude scale
Which in turn caused many pollsters to moan and wail.

In conclusion, without any attempt to cast aspersion
or blame
I note that in research much hinges on the question
frame
And in ending this assignment to which I've been tasked
I stress that we must pay great heed to how the
question's asked.

*Richard M. Perloff is Professor of
Communication at Cleveland State University.
He received his Ph.D. from the University of
Wisconsin-Madison in mass communication. Dr.
Perloff is author of *The Dynamics of
Persuasion* (Lawrence Erlbaum Associates,
1993) and has published in the area of mass
communication and public opinion. He is
currently head of the Communication Theory
and Methodology Division of the Association
for Education in Journalism and Mass
Communication and president-elect of the
Midwest Association for Public Opinion
Research.*

.....

The BEHAVIORAL MEASUREMENTS Letter

Behavioral
Measurement
Database
Services

.....

In This Issue:

- Looking Inside HaPI — *Linda Perloff* 1
 - Clinical Measurement for Primary Care:
Helping Helpers Help Patients Help
Themselves — *Scott H. Frank*..... 3
 - Faith in Measurement —
David F. Gillespie 5
 - HaPI Thoughts — *Richard M. Perloff* 7
-

The Behavioral Measurements Letter

BMDS Behavioral
Measurement
Database
Services

PO Box 110287 • Pittsburgh, PA 15232-0787

Bulk Rate U.S. Postage PAID Permit No. 1235 Pittsburgh, PA

DATED MATERIAL